Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1621con

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	DEC 01	ChemPort single article sales feature unavailable
NEWS 3	JUN 01	CAS REGISTRY Source of Registration (SR) searching enhanced on STN
NEWS 4	JUN 26	NUTRACEUT and PHARMAML no longer updated
NEWS 5	JUN 29	IMSCOPROFILE now reloaded monthly
NEWS 6	JUN 29	EPFULL adds Simultaneous Left and Right Truncation (SLART) to AB, MCLM, and TI fields
NEWS 7	JUL 09	PATDPAFULL adds Simultaneous Left and Right Truncation (SLART) to AB, CLM, MCLM, and TI fields
NEWS 8	JUL 14	USGENE enhances coverage of patent sequence location (PSL) data
NEWS 9	JUL 27	CA/CAplus enhanced with new citing references
NEWS 10	JUL 16	GBFULL adds patent backfile data to 1855
NEWS 11	JUL 21	USGENE adds bibliographic and sequence information
NEWS 12	JUL 28	EPFULL adds first-page images and applicant-cited references
NEWS 13	JUL 28	INPADOCDB and INPAFAMDB add Russian legal status data
NEWS 14	AUG 08	Improve STN by completing a survey and be entered to win a gift card
NEWS 15	AUG 10	Time limit for inactive STN sessions doubles to 40 minutes
NEWS 16	AUG 17	CAS REGISTRY, the Global Standard for Chemical Research, Approaches 50 Millionth Registration Milestone
NEWS 17	AUG 18	COMPENDEX indexing changed for the Corporate Source (CS) field

NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4,
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN customer agreement. This agreement limits use to scientific research. Use for software development or design, implementation of commercial gateways, or use of CAS and STN data in the building of commercial

products is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:34:00 ON 20 AUG 2009

=> FILE REG

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.22	0.22

FILE 'REGISTRY' ENTERED AT 16:34:12 ON 20 AUG 2009

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 AUG 2009 HIGHEST RN 1174705-31-7
DICTIONARY FILE UPDATES: 19 AUG 2009 HIGHEST RN 1174705-31-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

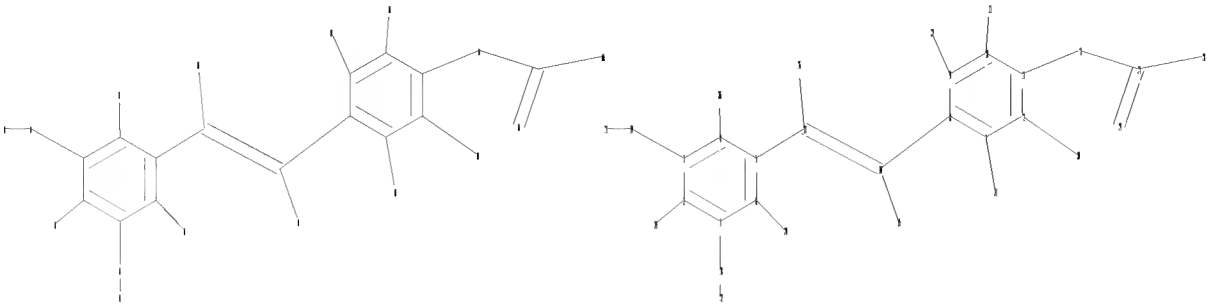
TSCA INFORMATION NOW CURRENT THROUGH June 26, 2009.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\NO22A.str



chain nodes :
13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 31 32
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
1-18 2-25 3-19 4-26 5-13 6-24 7-21 8-14 9-22 10-23 11-17 12-20 13-14
13-16 14-15 17-27 18-32 19-31 27-29 27-28
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
1-18 3-19 11-17 17-27 27-29 27-28
exact bonds :
2-25 4-26 5-13 6-24 7-21 8-14 9-22 10-23 12-20 13-14 13-16 14-15 18-32
19-31
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:Cy,Ak

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS
19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS
27:CLASS 28:CLASS 29:CLASS 31:CLASS 32:CLASS

L1 STRUCTURE UPLOADED

=> S L1 FULL
FULL SEARCH INITIATED 16:34:42 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1728 TO ITERATE

100.0% PROCESSED 1728 ITERATIONS 27 ANSWERS
SEARCH TIME: 00.00.01

L2 27 SEA SSS FUL L1

=> FILE CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	185.88	186.10

FILE 'CAPLUS' ENTERED AT 16:34:51 ON 20 AUG 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 20 Aug 2009 VOL 151 ISS 8
FILE LAST UPDATED: 19 Aug 2009 (20090819/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

CAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAplus family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 9.

=> S L2
L3 43 L2

=> D L3 IBIB ABS HITSTR 1-43

L3 ANSWER 1 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2009:296715 CAPLUS
DOCUMENT NUMBER: 150:313286
TITLE: Resveratrol ferulate compounds, topical compositions containing the compounds, and methods of using the same in skin lightening and anti-aging cosmetic formulations
INVENTOR(S): Bratescu, Daniela; Mohammadi, Fatemeh; Zecchino, Jules; Daneshyar, Fred
PATENT ASSIGNEE(S): Elc Management LLC, USA
SOURCE: PCT Int. Appl., 59pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009032896	A2	20090312	WO 2008-US75210	20080904
WO 2009032896	A3	20090507		

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

US 20090068132	A1	20090312	US 2008-204064		20080904
PRIORITY APPLN. INFO.:			US 2007-970943P	P	20070908
			US 2008-29600P	P	20080219

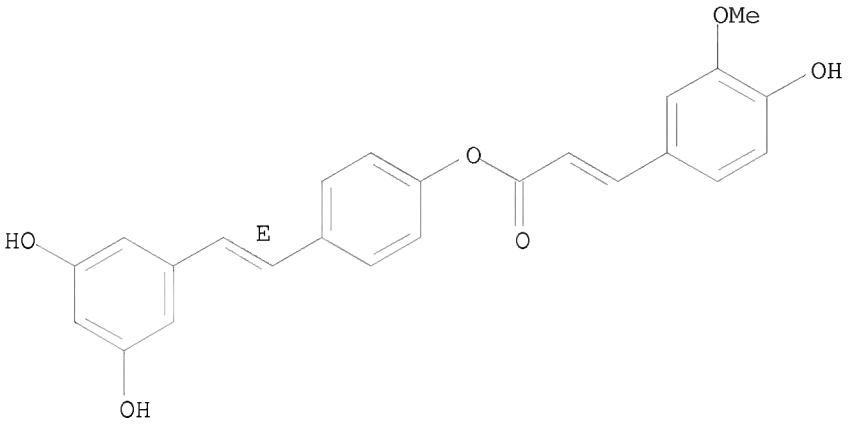
OTHER SOURCE(S): MARPAT 150:313286

AB The present invention relates to cosmetic compns. containing resveratrol ferulate in a topically acceptable carrier. Such compns. are particularly effective for skin lightening and anti-aging applications and have excellent color stability and extended shelf life. Thus, resveratrol ferulates were synthesized by liquid-phase esterification: 91.3 g of resveratrol (approx. 0.4 M) was first dissolved in 300 mL of THF to form a first solution; 77.7 g of ferulic acid (approx. 0.4 M) was dissolved in 300 mL of THF to form a second solution; 0.1 g of p-toluene sulfuric acid was dissolved in 20 mL of THF to form a third solution; the three solns. were then mixed followed by addition of 10 mL of benzene, heated until boiling, and the boiling was continued under reflux for 5 h to collect 50 mL of distillate; next, 50 mL of THF and 10 mL of benzene were added into the liquid mixture, which was continued to be heated under reflux for another 5 h to collect another 50 mL of distillate; another 50 mL of THF and 10 mL of benzene were added into the liquid mixture, followed by continuous heating of the liquid mixture under reflux for yet another 5 h. All the distillate so collected was discarded, and boiling of the liquid mixture was continued to distill off more solvent until the liquid mixture in the flask became viscous, but before any solid phase started to form in it (if a solid phase started to form, add some THF into the liquid mixture to dissolve it); the heat was then turned off, and the contents of the flask were allowed to cool slowly, thereby forming solid crystals in the liquid mixture The end product formed was a mixture of resveratrol monoferulate, resveratrol diferulate, and/or resveratrol triferulate and their resp. isomers; such mixture is therefore jointly to as "resveratrol ferulates" and was formulated into various topical or cosmetic compns.

IT 1129399-79-6
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(resveratrol ferulate compds., topical compns. containing compds., and methods of using same in skin lightening and anti-aging cosmetic

formulations)
RN 1129399-79-6 CAPLUS
CN 2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-,
4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)

Double bond geometry as described by E or Z.



L3 ANSWER 2 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2009:116085 CAPLUS
DOCUMENT NUMBER: 150:176361
TITLE: Resveratrol complex and process for the preparation
INVENTOR(S): Arigony Souto, Andre
PATENT ASSIGNEE(S): Uniaeo Brasileira De Educacao E Assitencia-Mantenedora Da Pucrs, Brazil; Eurofarma Laboratorios Ltda.
SOURCE: PCT Int. Appl., 36pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009012551	A1	20090129	WO 2008-BR216	20080723

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: BR 2007-5319 A 20070723
AB The present invention provides products having resveratrol with high water solubility and nutraceutical and/or phytotherapic compns. having said

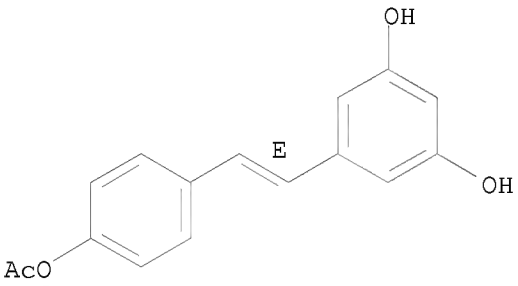
substances. The processes for obtaining them include the solubility increase of the polyphenol corresponding to a resveratrol compound, preferably trans-resveratrol in water, by its complexation with cyclodextrin under specific conditions that favor thermodn. equilibrium The products of the invention present high solubility and purity in aqueous medium, being, therefore, useful to prepare nutraceutical compns. (pharmaceutical and/or alimentary) with antioxidant, anti-inflammatory, antiviral, antidiabetics, cardioprotective, neuroprotective, chemoprotective activities; besides protecting against infections and ischemia, reducing obesity, and preventing aging. Phytotherapic compns. useful to the same therapeutical activities, prepared from the complex of resveratrol and cyclodextrin compound, preferably beta- cyclodextrin/trans-resveratrol, are also provided.

IT 411233-11-9
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(resveratrol complex and process for the preparation)

RN 411233-11-9 CAPLUS

CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1530346 CAPLUS

DOCUMENT NUMBER: 150:77699

TITLE: Compositions and methods of use for treating or preventing lipid related disorders

INVENTOR(S): Currie, Mark; Talley, John; Cali, Brian

PATENT ASSIGNEE(S): Ironwood Pharmaceuticals, Inc, USA

SOURCE: PCT Int. Appl., 197pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

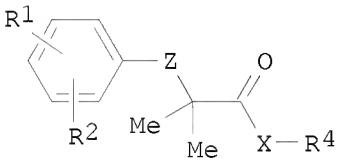
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008157537	A2	20081224	WO 2008-US67204	20080617
WO 2008157537	A3	20090402		

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,

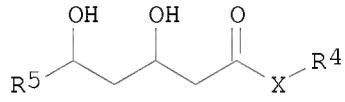
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,
FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

US 20090054450 A1 20090226 US 2008-140637 20080617
PRIORITY APPLN. INFO.: US 2007-944934P P 20070619
US 2008-23744P P 20080125
US 2008-30778P P 20080222

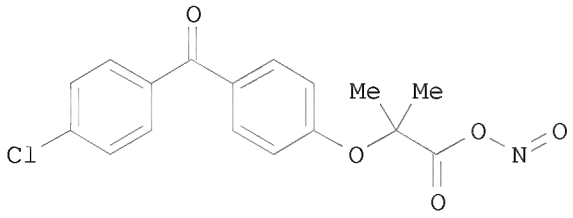
OTHER SOURCE(S): MARPAT 150:77699
GI



I



II



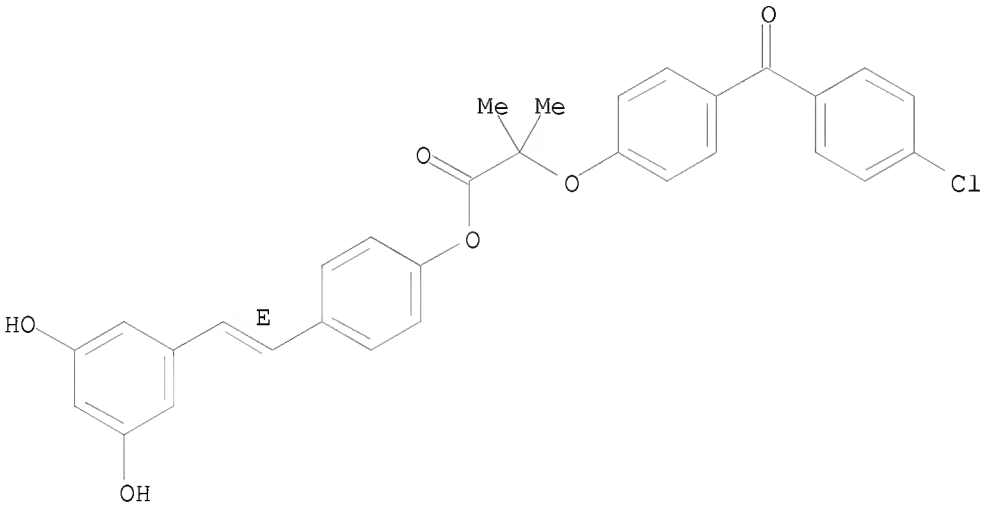
III

AB Disclosed herein are compds. of formula I and II and their compns. and methods for treating or preventing a variety of disorders and conditions associated with lipid metabolism The methods generally include administering to a patient in need thereof a therapeutically effective amount of a pharmaceutical composition comprising one or more fibric acid or statin derivative compns. alone or in combination with one or more lipid altering agents and/or PDE inhibitors. Compds. of formula I and II wherein R1 is H and halo; R2 is H, halo, (un)substituted cycloalkyl, (un)substituted benzoyl, etc.; Z is O, and (CH2)1-3-O; X is a bond, O, NH, and amino acid residue; R4 is Oh, NO, NO2, amino acid residue, fibric acid residue, guanidine, tetrazolyl, agmatine, etc.; R5 is a statin residue; are claimed. Example compound III was prepared by a general procedure. The invention compds. were evaluated for their ability to treat lipid related disorders.

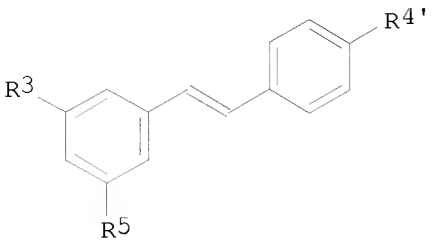
IT 1094098-94-8P
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic

preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of compds. for treatment, prevention and combination therapy of lipid-related disorders)
RN 1094098-94-8 CAPLUS
CN Propanoic acid, 2-[4-(4-chlorobenzoyl)phenoxy]-2-methyl-, 4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)

Double bond geometry as shown.



L3 ANSWER 4 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:1344410 CAPLUS
DOCUMENT NUMBER: 150:472457
TITLE: Chemoenzymatic synthesis and some biological properties of O-phosphoryl derivatives of (E)-resveratrol
AUTHOR(S): Aleo, Danilo; Cardile, Venera; Chillemi, Rosa; Granata, Giuseppe; Sciuto, Sebastiano
CORPORATE SOURCE: Dipartimento di Scienze Chimiche, Universita di Catania, Catania, 95125, Italy
SOURCE: Natural Product Communications (2008), 3(10), 1693-1700
CODEN: NPCACO; ISSN: 1934-578X
PUBLISHER: Natural Product Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

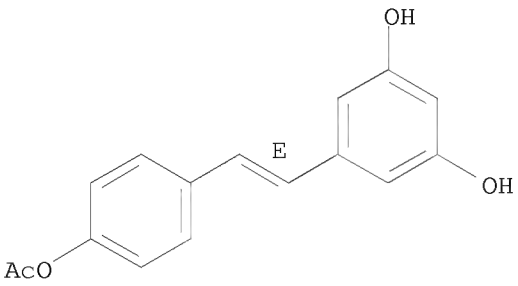
AB 3-O-, 3,5-di-O- and 4'-O-phosphoryl derivs. I [R3 = OPO3H2, R4' = OH, R5 = OH; R3 = OPO3H2, R4' = OH, R5 = OPO3H2; R3 = OH, R4' = OPO3H2, R5 = OH, resp.] of (E)-resveratrol I [R3 = R4' = R5 = OH] were prepared via a chemoenzymic strategy. Acylated resveratrol derivs. were obtained first by exploiting regioselective properties of Pseudomonas cepacea or Candida antarctica lipases in organic solvents. Each acyl-resveratrol was then phosphorylated by the phosphoramidite chemical protocol and in sequence freed of protective groups, affording the desired O-phosphoryl derivative Following UV-absorption spectroscopic investigation on the interaction of the newly synthesized compds. with DNA, 4'-O-phosphorylresveratrol exhibited the best binding affinity. As a result of cytotoxicity tests, 3-O-phosphorylresveratrol was more active than resveratrol against DU 145 prostate cancer cells.

IT 411233-11-9P
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of O-phosphoryl derivs. of resveratrol via enzymic acetylation, enzymic hydrolysis and phosphorylation and evaluation of UV absorption properties and cytotoxicity against BPH-1, fibroblasts and prostate cancer cells)

RN 411233-11-9 CAPLUS

CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN

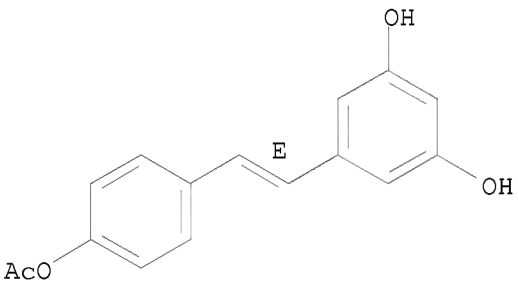
ACCESSION NUMBER: 2008:1017188 CAPLUS

DOCUMENT NUMBER: 149:471246

TITLE: Heck arylation of styrenes with arenediazonium salts:

short, efficient, and stereoselective synthesis of resveratrol, DMU-212, and analogues
AUTHOR(S): Moro, Angelica Venturini; Cardoso, Flavio Sega P.; Correia, Carlos Roque D.
CORPORATE SOURCE: Instituto de Quimica, UNICAMP, Universidade Estadual de Campinas, Sao Paulo, CEP. 13084-971, Brazil
SOURCE: Tetrahedron Letters (2008), 49(39), 5668-5671
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 149:471246
AB Short, efficient, and stereoselective synthesis of the trans-stilbenes resveratrol, DMU-212, and analogs of both compds. are described. The synthesis of these important anti-cancer agents feature the palladium catalyzed Heck-Matsuda arylation of styrenes with arenediazonium tetrafluoroborates.
IT 411233-11-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(stereoselective synthesis of resveratrol, DMU-212, and analogs via Heck-Matsuda arylation of styrenes with arenediazonium tetrafluoroborates)
RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:200736 CAPLUS
DOCUMENT NUMBER: 149:258960
TITLE: Conjugation of resveratrol with RGD and KGD derivatives
AUTHOR(S): Koutsas, C.; Sarigiannis, Y.; Stavropoulos, G.; Liakopoulou-Kyriakides, M.
CORPORATE SOURCE: Faculty of Chemical Engineering, Aristotle University of Thessaloniki, Thessaloniki, 54124, Greece
SOURCE: Protein & Peptide Letters (2007), 14(10), 1014-1020
CODEN: PPELEN; ISSN: 0929-8665
PUBLISHER: Bentham Science Publishers Ltd.

DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 149:258960

AB The reaction between Arg-Gly-Asp (RGD) and Lys-Gly-Asp (KGD) derivs. with 3,4',5-trihydroxy-trans-stilbene (resveratrol) was investigated. Knowing that resveratrol, RGD as well as KGD analogs inhibit human platelet aggregation in vitro, it was tempting for us to examine whether their coupling products present enhanced biol. activity. Here, we report on the synthesis and identification of these coupling products. The N-protected peptides were synthesized by solid phase technique, using the 2-chlorotrityl-chloride resin, by the method of carbodiimides. Coupling reactions with resveratrol took place in solution using N,N-dicyclohexylcarbodiimide (DCC) as coupling reagent and 4-dimethylaminopyridine (DMAP) as catalyst. The reaction products were purified by reversed phase HPLC and identified by ESI-MS. The mono-esterified resveratrol derivative was the main (or only) reaction product, whereas the di- and the tri-ester (to a less extent) formation was noticed in some cases.

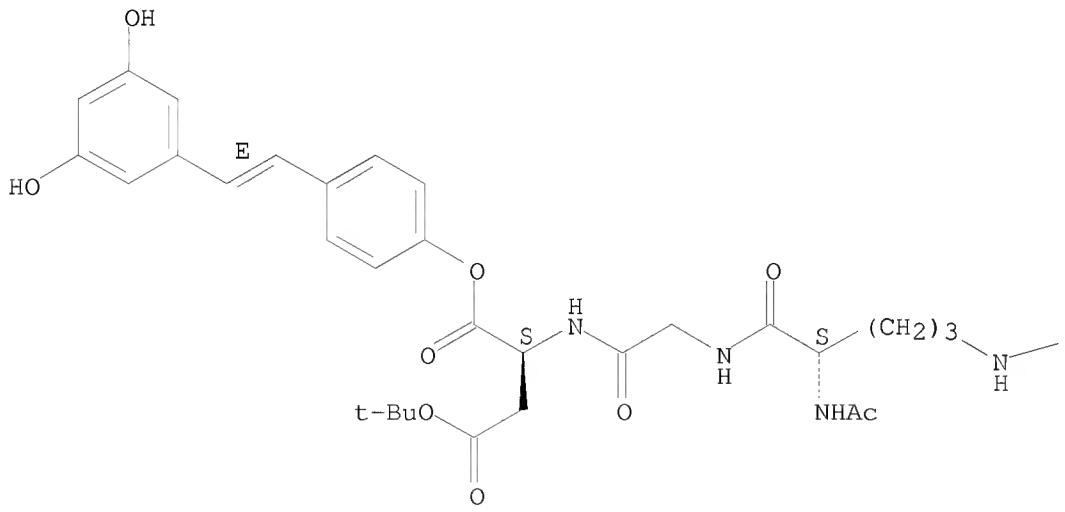
IT 1046808-76-7P 1046808-79-0P 1046808-80-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(conjugation of resveratrol with RGD and KGD derivs. for preparation of platelet aggregation inhibitors)

RN 1046808-76-7 CAPLUS

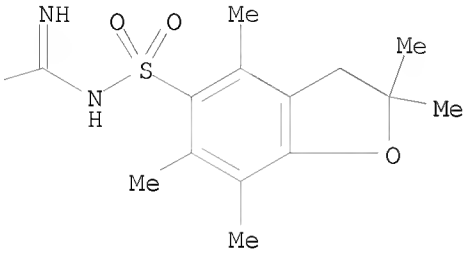
CN L-Aspartic acid, N2-acetyl-N5-[[[(2,3-dihydro-2,2,4,6,7-pentamethyl-5-benzofuranyl)sulfonyl]amino]iminomethyl]-L-ornithylglycyl-, 31-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenyl] 34-(1,1-dimethylethyl) ester (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



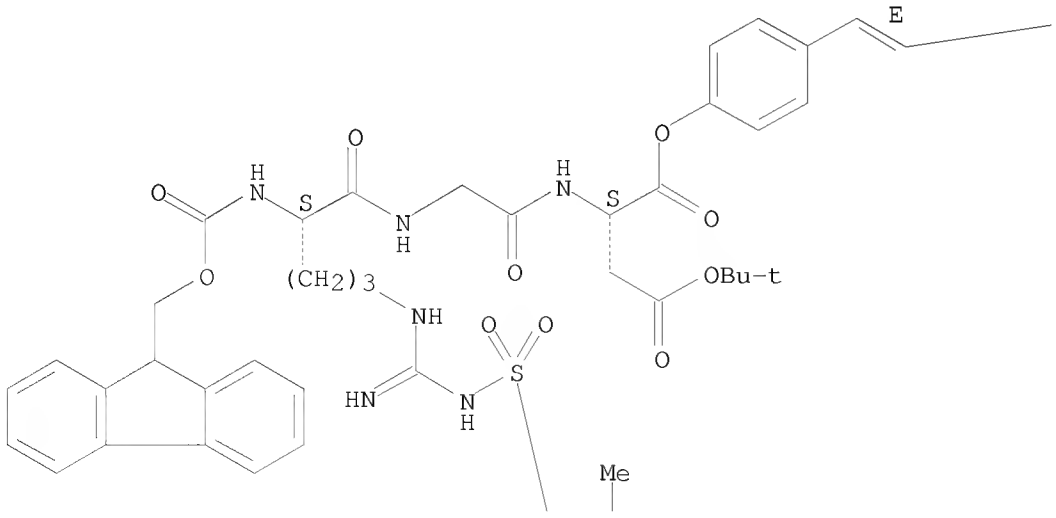
PAGE 1-B



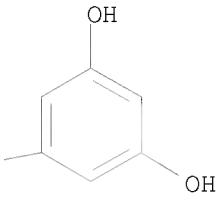
RN 1046808-79-0 CAPLUS
CN L-Aspartic acid, N5-[[[(2,3-dihydro-2,2,4,6,7-pentamethyl-5-benzofuranyl)sulfonyl]amino]iminomethyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]-L-ornithylglycyl-, 31-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenyl] 34-(1,1-dimethylethyl) ester (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

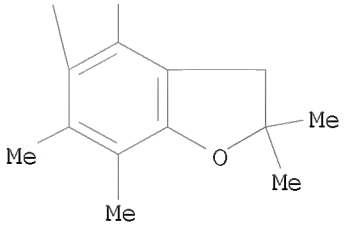
PAGE 1-A



PAGE 1-B



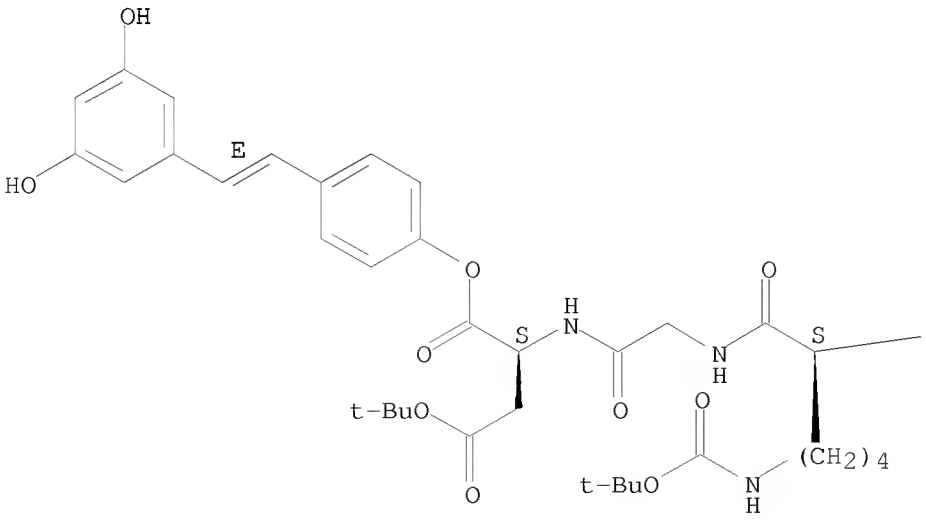
PAGE 2-A

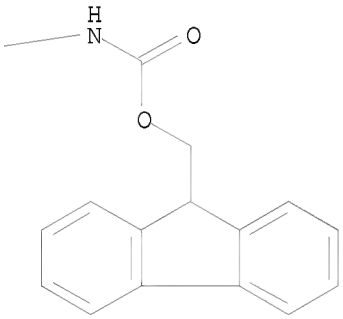


RN 1046808-80-3 CAPLUS
CN L-Aspartic acid, N6-[(1,1-dimethylethoxy)carbonyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]-L-lysylglycyl-, 31-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenyl] 34-(1,1-dimethylethyl) ester (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A





REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:27416 CAPLUS
DOCUMENT NUMBER: 148:144915
TITLE: Preparation of carotenoid ester analogs or derivatives for the inhibition and amelioration of ischemic reperfusion injury
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): Cardax Pharmaceuticals, Inc., USA
SOURCE: U.S., 137pp., Cont.-in-part of U.S. Ser. No. 629,538. CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 7317008	B2	20080108	US 2004-793703	20040304
US 20050037995	A1	20050217		
US 20040162329	A1	20040819	US 2003-629538	20030729
US 7145025	B2	20061205		
US 20050065097	A1	20050324	US 2004-793696	20040304
US 20050075337	A1	20050407	US 2004-793702	20040304
US 20060229446	A1	20061012	US 2006-357897	20060217

PRIORITY APPLN. INFO.:

US 2002-399194P	P	20020729
US 2003-467973P	P	20030505
US 2003-472831P	P	20030522
US 2003-473741P	P	20030528
US 2003-485304P	P	20030703
US 2003-629538	A2	20030729

OTHER SOURCE(S): MARPAT 148:144915

AB Carotenoid ester analogs or derivs. are prepared for the treatment of ischemic reperfusion injury. The carotenoid analog may include a conjugated polyene with 7 to 14 double bonds, and may include a cyclic ring including at least one substituent with an ester functionality. The method may include administering to the subject an effective amount of a pharmaceutically acceptable formulation of the carotenoid analog. The subject may be administered a carotenoid analog or derivative, either alone or in combination with another carotenoid analog or derivative, or co-antioxidant formulation. Thus, disodium astaxanthin disuccinate (mixture of stereoisomers) was prepared, and increased assembly of Cx43 in treated murine 10T1/2 cells.

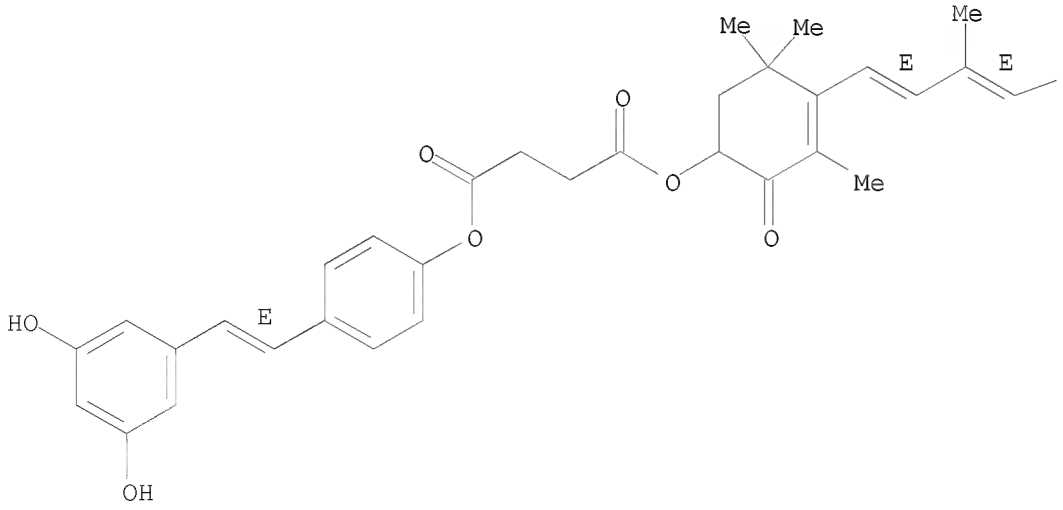
IT 835885-11-5P 835885-12-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of carotenoid esters for treatment of ischemic reperfusion injury)

RN 835885-11-5 CAPLUS

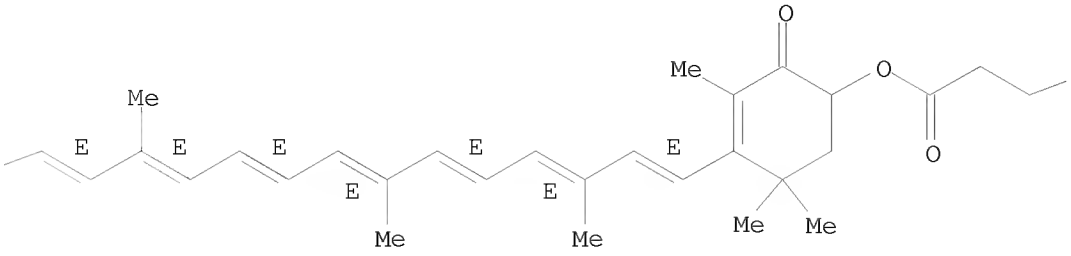
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

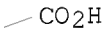
PAGE 1-A



PAGE 1-B



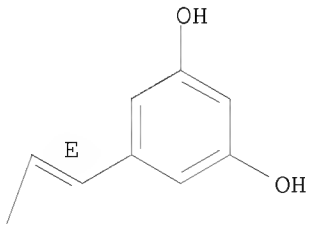
PAGE 1-C



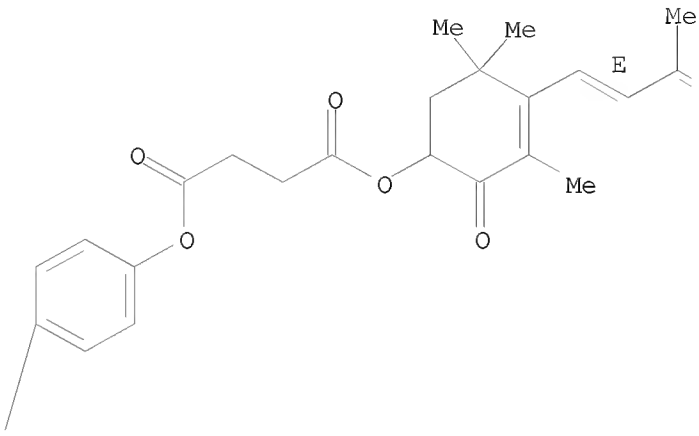
RN 835885-12-6 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

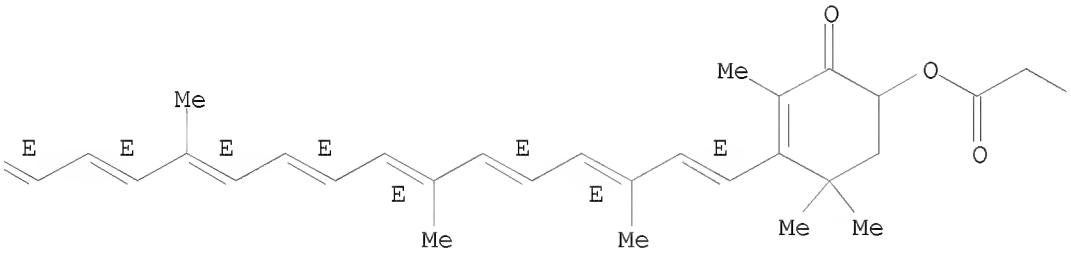
PAGE 1-C



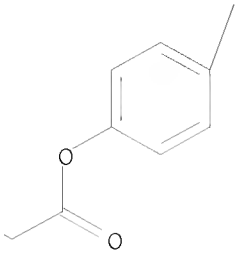
PAGE 2-A



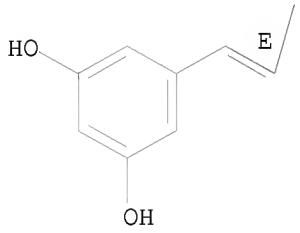
PAGE 2-B



PAGE 2-C



PAGE 3-A



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)
REFERENCE COUNT: 470 THERE ARE 470 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:1064480 CAPLUS
DOCUMENT NUMBER: 147:371217
TITLE: Cosmetic, pharmaceutical, food and veterinary compositions whose activating action on genes of sirtuin type makes it possible to delay ageing in mammals and the harmful effects thereof
INVENTOR(S): Fructus, Alain
PATENT ASSIGNEE(S): Af Consulting, Fr.
SOURCE: PCT Int. Appl., 17pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007104867	A2	20070920	WO 2007-FR449	20070315
WO 2007104867	A3	20071115		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,

RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

FR 2898493	A1	20070921	FR 2006-2294	20060316
FR 2898493	B1	20080808		

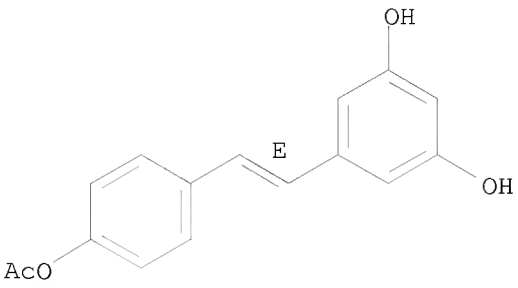
PRIORITY APPLN. INFO.: FR 2006-2294 A 20060316

AB Compns. for cosmetic, pharmaceutical, food or veterinary use, intended to delay aging in mammals through their activating action on genes of sirtuin type, which genes are naturally activated during calorie restriction. These compns. are characterized in that they contain one or more oligomers of resveratrol, and more particularly ε-viniferin, and/or glucosides and/or the corresponding esters of these oligomers and/or the natural exts. containing them. It has been shown, on several living species, that calorie restriction extends the lifespan and reduces the deleterious effects of aging. Studies on primates and on human populations have corroborated these results. It has also been shown that calorie restriction activates certain genes called sirtuins (silent information regulator). Consequently, natural or synthetic ingredients or mols. which activate genes and make it possible to do without a difficult long-term calorie restriction have been sought. Resveratrol or 3,4',5-trihydroxystilbene is known to activate certain genes of the sirtuin family. The present invention describes, for the first time, the activation of these genes by oligomers of resveratrol, in particular Pε-viniferin. A specific test has been carried out and shows that Pε-viniferin and an extract of vine shoot containing it, and also other oligomers of resveratrol, completely activate the SIRT1 enzyme. Cosmetic, pharmaceutical, food and veterinary compns. are described by way of examples. The cosmetic composition described, and which contains an extract of vine shoot, was subjected to tests which showed that it is completely innocuous on human skin. It was also subjected to a test on humans showing its effectiveness in decreasing the effects of aging. The invention claims cosmetic, pharmaceutical, food and veterinary compns. whose activating action on sirtuin genes makes it possible to delay aging in mammals and combat the harmful effects thereof. An antiaging cosmetic contained ε-viniferin pentaacetate 500 mg, polyvinylpyrrolidone 0.25 g, and magnesium starate 0.25 g.

IT 411233-11-9
RL: FFD (Food or feed use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cosmetic, pharmaceutical, food and veterinary compns. whose activating action on genes of sirtuin type makes it possible to delay aging in mammals and harmful effects thereof)

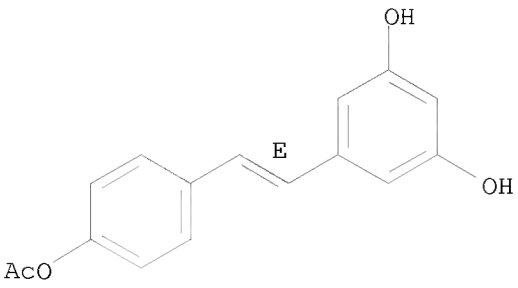
RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



L3 ANSWER 9 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:938725 CAPLUS
DOCUMENT NUMBER: 148:4688
TITLE: Design and synthesis of compounds that extend yeast replicative lifespan. [Erratum to document cited in CA147:005220]
AUTHOR(S): Yang, Hongying; Baur, Joseph A.; Chen, Allen; Miller, Christine; Adams, Jeffrey K.; Kisielewski, Anne; Howitz, Konrad T.; Zipkin, Robert E.; Sinclair, David A.
CORPORATE SOURCE: Department of Pathology, Harvard Medical School, Boston, MA, 02115, USA
SOURCE: Aging Cell (2007), 6(4), 593
CODEN: ACGECQ; ISSN: 1474-9718
PUBLISHER: Blackwell Publishing Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB There were some author names that were not included in the author list; The correct author list and affiliations are provided. In addition the authors have a supplementary Figure S1 available, titled "Figure S1: Synthetic schemes for synthesis of resveratrol derivatives 1-5". This material is available as part of the online article from: http://www.blackwell-synergy.com/doi/abs/10.1111/j.1474-9726.2007.00317.x.
IT 411233-11-9P
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(design and synthesis of compds. that extend yeast replicative lifespan (Erratum))
RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

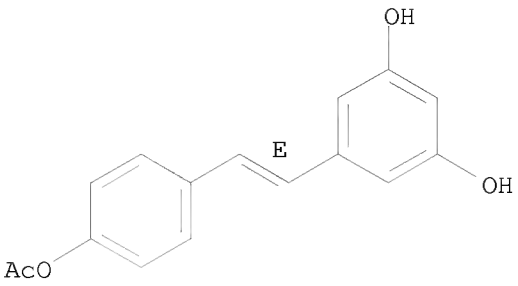
Double bond geometry as shown.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 10 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:254816 CAPLUS
DOCUMENT NUMBER: 147:5220
TITLE: Design and synthesis of compounds that extend yeast replicative lifespan
AUTHOR(S): Yang, Hongying; Baur, Joseph A.; Chen, Allen; Miller, Christine; Sinclair, David A.
CORPORATE SOURCE: Department of Pathology, Harvard Medical School, Boston, MA, 02115, USA
SOURCE: Aging Cell (2007), 6(1), 35-43
CODEN: ACGECQ; ISSN: 1474-9718
PUBLISHER: Blackwell Publishing Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This past decade has seen the identification of numerous conserved genes that extend lifespan in diverse species, yet the number of compds. that extend lifespan is relatively small. A class of compds. called STACs, which were identified as activators of Sir2/SIRT1 NAD+-dependent deacetylases, extend the lifespans of multiple species in a Sir2-dependent manner and can delay the onset of age-related diseases such as cancer, diabetes and neuro-degeneration in model organisms. Plant-derived STACs such as fisetin and resveratrol have several liabilities, including poor stability and relatively low potency as SIRT1 activators. To develop improved STACs, stilbene derivs. with modifications at the 4' position of the B ring were synthesized using a Horner-Emmons-based synthetic route or by hydrolyzing deoxyrhapontin. Here, we describe synthetic STACs with lower toxicity toward human cells, and higher potency with respect to SIRT1 activation and lifespan extension in Saccharomyces cerevisiae. These studies show that it is possible to improve upon naturally occurring STACs based on a number of criteria including lifespan extension.
IT 411233-11-9P
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(design and synthesis of compds. that extend yeast replicative lifespan)
RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)
REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 11 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:61185 CAPLUS
DOCUMENT NUMBER: 146:169320
TITLE: Compositions for treating or preventing obesity, insulin resistance and mitochondrial-associated disorders
INVENTOR(S): Milburn, Michael; Milne, Jill; Auwerx, Johan; Argmann, Carmen; Lagouge, Marie; Dipp, Michelle
PATENT ASSIGNEE(S): Sirtris Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 337pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007008548	A2	20070118	WO 2006-US26272	20060707
WO 2007008548	A3	20070809		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
US 20070149466	A1	20070628	US 2006-374295	20060316
AU 2006269459	A1	20070118	AU 2006-269459	20060707
CA 2613141	A1	20070118	CA 2006-2613141	20060707
EP 1898897	A2	20080319	EP 2006-786429	20060707
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2009500357	T	20090108	JP 2008-519734	20060707
CN 101257897	A	20080903	CN 2006-80033014	20080307

PRIORITY APPLN. INFO.:

US 2005-697443P	P	20050707
US 2005-736528P	P	20051114
US 2005-753606P	P	20051223
US 2006-783802P	P	20060316
WO 2006-US26272	W	20060707

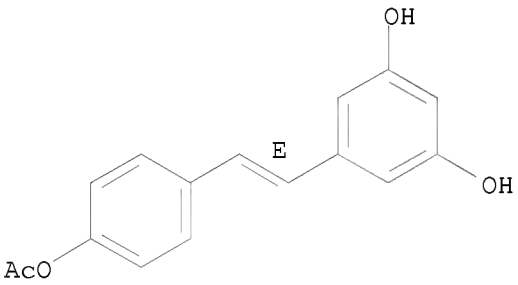
AB Provided herein are methods and compns. for treating or preventing metabolic disorders, such as obesity and diabetes. Methods may comprise modulating the activity or level of a sirtuin, such as SIRT1 or Sir2. Exemplary methods comprise contacting a cell with a sirtuin activating compound, such as a flavone, stilbene, flavanone, isoflavone, catechin, chalcone, tannin or anthocyanidin, or an inhibitory compound, such as nicotinamide. Resveratrol increases the PGC-1 protein deacetylation.

IT 411233-11-9, BML 221
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. for treating or preventing obesity and insulin resistance and mitochondrial-associated disorders)

RN 411233-11-9 CAPLUS

CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

L3 ANSWER 12 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:5410 CAPLUS

DOCUMENT NUMBER: 146:176175

TITLE: Biological Activity of Acetylated Phenolic Compounds

AUTHOR(S): Fragopoulou, Elizabeth; Nomikos, Tzortzis; Karantonis, Haralabos C.; Apostolakis, Constantinos; Pliakis, Emmanuel; Samiotaki, Martina; Panayotou, George; Antonopoulou, Smaragdi

CORPORATE SOURCE: Department of Science of Nutrition-Dietetics, Harokopio University of Athens, Athens, 17671, Greece

SOURCE: Journal of Agricultural and Food Chemistry (2007), 55(1), 80-89
CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

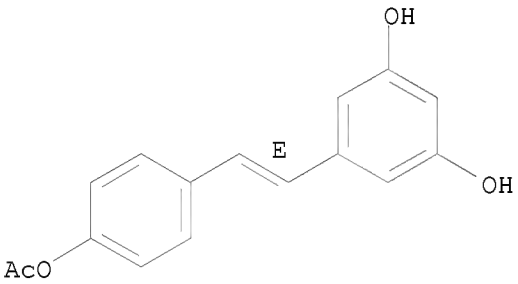
AB In recent years an effort has been made to isolate and identify biol. active compds. that are included in the Mediterranean diet. The existence of naturally occurring acetylated phenolics, as well as studies with synthetic ones, provide evidence that acetyl groups could be correlated

with their biol. activity. Platelet activating factor (PAF) is implicated in atherosclerosis, whereas its inhibitors seem to play a protective role against cardiovascular disease. The aim of this study was to examine the biol. activity of resveratrol and tyrosol and their acetylated derivs. as inhibitors of PAF-induced washed rabbit platelet aggregation. Acetylation of resveratrol and tyrosol was performed, and separation was achieved by HPLC. Acetylated derivs. were identified by neg. mass spectrometry. The data showed that tyrosol and its monoacetylated derivs. act as PAF inhibitors, whereas diacetylated derivs. induce platelet aggregation. Resveratrol and its mono- and triacetylated derivs. exert similar inhibitory activity, whereas the diacetylated ones are more potent inhibitors. In conclusion, acetylated phenolics exert the same or even higher antithrombotic activity compared to the biol. activity of the initial one.

IT 411233-11-9P
RL: PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antithrombotic activity of acetylated phenolic compds.)

RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 13 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:768911 CAPLUS
DOCUMENT NUMBER: 145:181017
TITLE: Strategies for designing drugs that target the sir2 family of enzymes
INVENTOR(S): Wolberger, Cynthia; Avalos, Jose Luis
PATENT ASSIGNEE(S): The Johns Hopkins University, USA
SOURCE: PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006081329	A2	20060803	WO 2006-US2713	20060125

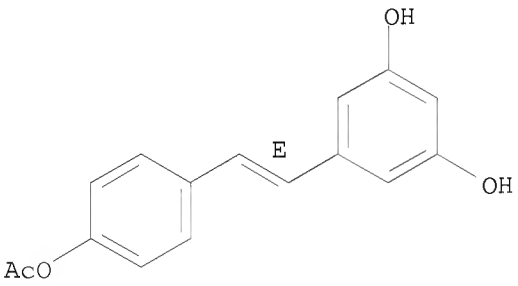
WO 2006081329 A3 20090430
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
EP 1844157 A2 20071017 EP 2006-733906 20060125
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU
US 20090012130 A1 20090108 US 2008-883015 20080828
PRIORITY APPLN. INFO.: US 2005-646792P P 20050125
WO 2006-US2713 W 20060125

AB The invention describes methods for identifying compds. that modulate the activity of Sir2 enzymes. Sir2 enzymes form a unique class Of NAD+-dependent deacetylases required for diverse biol. processes including transcriptional silencing, regulation of apoptosis, fat mobilization, and lifespan regulation. Sir2 activity is regulated by nicotinamide, a non-competitive inhibitor that promotes a base exchange reaction at the expense of deacetylation.

IT 411233-11-9 411233-11-9D, analogs and derivs.
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(strategies for designing drugs that target sir2 family of enzymes)

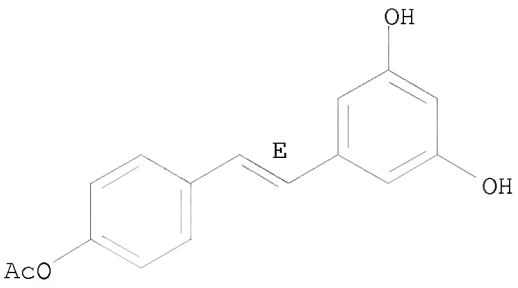
RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



L3 ANSWER 14 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:734482 CAPLUS
DOCUMENT NUMBER: 145:202956
TITLE: Methods and compositions using sirtuin modulators for treating flushing and drug-induced weight gain
INVENTOR(S): Sinclair, David; Milburn, Michael; Langer, Robert S.; Westphal, Christoph H.
PATENT ASSIGNEE(S): Sirtris Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 268 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006079021	A2	20060727	WO 2006-US2267	20060120
WO 2006079021	A3	20070322		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2006206274	A1	20060727	AU 2006-206274	20060120
CA 2595486	A1	20060727	CA 2006-2595486	20060120
US 20060276416	A1	20061207	US 2006-336258	20060120
EP 1841415	A2	20071010	EP 2006-719216	20060120
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
JP 2008528510	T	20080731	JP 2007-552335	20060120

PRIORITY APPLN. INFO.:

US 2005-645916P	P	20050120
US 2005-645962P	P	20050121
WO 2006-US2267	W	20060120

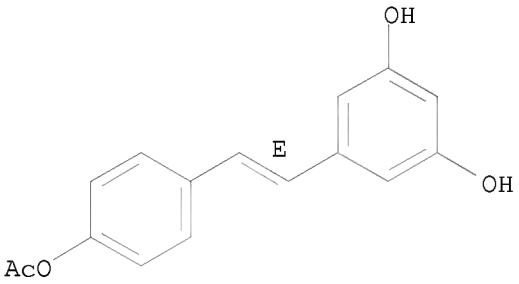
AB The invention provides methods and compns. for treating and/or preventing

flushing and/or weight gain. The methods may comprise modulating the activity or level of a sirtuin, such as SIRT1 or Sir2. Exemplary embodiments include methods and compns. for counteracting drug-induced weight gain and/or drug-induced flushing by administering a sirtuin-activating compound Compds. of the invention include e.g.resveratrol analogs (preparation described).

IT 411233-11-9, BML 221
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sirtuin modulators for treating flushing and drug-induced weight gain)

RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 15 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:710888 CAPLUS
DOCUMENT NUMBER: 145:180995
TITLE: Novel compositions for preventing and treating neurodegenerative and blood coagulation disorders
INVENTOR(S): Milburn, Michael; Milne, Jill; Westphal, Christopher H.; Normington, Karl D.; Fujii, Jennifer; Dipp, Michelle; Elliot, Peter
PATENT ASSIGNEE(S): Sirtris Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 294 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006076681	A2	20060720	WO 2006-US1428	20060113
WO 2006076681	A3	20070628		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,

SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

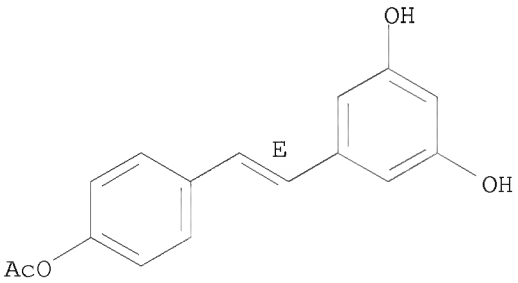
AU 2006204699	A1	20060720	AU 2006-204699	20060113
CA 2595159	A1	20060720	CA 2006-2595159	20060113
US 20060276393	A1	20061207	US 2006-332056	20060113
EP 1850840	A2	20071107	EP 2006-718495	20060113
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
JP 2008527002	T	20080724	JP 2007-551449	20060113
PRIORITY APPLN. INFO.:			US 2005-643921P	P 20050113
			US 2005-667179P	P 20050330
			US 2005-692785P	P 20050622
			US 2005-736528P	P 20051114
			US 2005-753606P	P 20051223
			WO 2006-US1428	W 20060113

AB Provided herein are methods and compns. for treating or preventing neurodegenerative disorders or blood coagulation disorders. Methods may comprise modulating the activity or level of a sirtuin, such as SIRT1 or Sir2. Exemplary methods comprise contacting a cell with a sirtuin activating compound, such as a flavone, stilbene, flavanone, isoflavone, catechin, chalcone, tannin or anthocyanidin; or an inhibitory compound, such as nicotinamide.

IT 411233-11-9P, BML-221
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(compns. for preventing and treating neurodegenerative and blood coagulation disorders)

RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

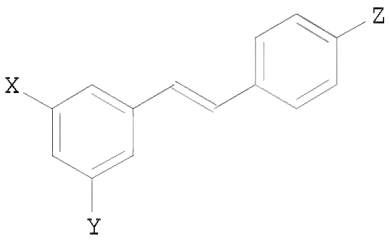
Double bond geometry as shown.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L3 ANSWER 16 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:693817 CAPLUS
DOCUMENT NUMBER: 145:314709

TITLE: Synthesis of polyhydroxylated ester analogs of the stilbene resveratrol using decarbonylative Heck couplings
AUTHOR(S): Andrus, Merritt B.; Liu, Jing
CORPORATE SOURCE: Department of Chemistry and Biochemistry, Brigham Young University, Provo, UT, 84602, USA
SOURCE: Tetrahedron Letters (2006), 47(32), 5811-5814
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 145:314709
GI



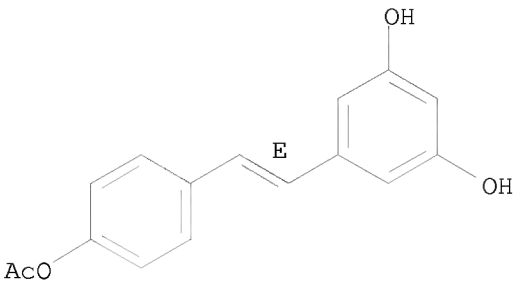
I

AB Levulinate- and chloroacetate-protected 3,5-dihydroxybenzoyl chlorides were coupled with styrenes, H2C:CHC6H4X-4 (X = OH, OAc, OCOCH2Cl, OCOCH2CH2COMe, F), to give hydroxylated stilbenes, analogs of resveratrol I (X = Y = Z = OH), an important antioxidant disease preventative agent isolated from grape skins and other dietary sources. Levulinate and chloroacetate protecting groups allowed for the selective production of mono- and di-acetate variations under palladium-N-heterocyclic carbene (NHC) catalyzed decarbonylative coupling conditions. Fluorinated analogs, such as I (X = F, Y = Z = OH; X = Y = OH, Z = F; X = Y = F, Z = OH; X = Y = Z = F), were also produced using Heck conditions with bromofluorobenzenes. Human leukemia HL-60 cell assays showed the 4'-acetoxy variant I (X = Y = OH, Z = OAc) possessed improved activity (ED50 = 17 μM) relative to resveratrol (ED50 = 24 μM).

IT 411233-11-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of ester analogs of resveratrol using decarbonylative Heck coupling reaction, and evaluation of their anticancer activity in leukemia cells)

RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)
REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:491764 CAPLUS
DOCUMENT NUMBER: 145:1047
TITLE: Methods and compositions using sirtuin modulators for treating or preventing obesity and insulin resistance disorders
INVENTOR(S): Sinclair, David A.; Alexander-Bridges, Maria
PATENT ASSIGNEE(S): President and Fellows of Harvard College, USA; The General Hospital Corporation
SOURCE: U.S. Pat. Appl. Publ., 154 pp., Cont.-in-part of U.S. Ser. No. 27,779.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060111435	A1	20060525	US 2005-174000	20050701
US 20050171027	A1	20050804	US 2004-27779	20041229
AU 2006266125	A1	20070111	AU 2006-266125	20060628
CA 2613636	A1	20070111	CA 2006-2613636	20060628
WO 2007005453	A2	20070111	WO 2006-US25138	20060628
WO 2007005453	A3	20070614		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
EP 1912632	A2	20080423	EP 2006-774176	20060628
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,				

IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR

JP 2009500331	T	20090108	JP 2008-519513		20060628
PRIORITY APPLN. INFO.:			US 2003-533712P	P	20031229
			US 2004-588643P	P	20040716
			US 2004-27779	A2	20041229
			US 2005-174000	A	20050701
			WO 2006-US25138	W	20060628

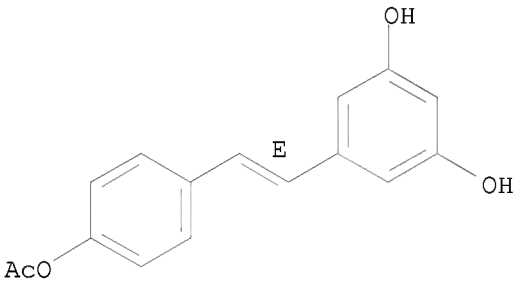
AB The invention provides methods and compns. for modulating the activity or level of a sirtuin, thereby treating or preventing obesity or an insulin resistance disorder, e.g. diabetes, in a subject. Exemplary methods comprise contacting a cell with a sirtuin activating compound or an inhibitory compound to thereby increase or decrease fat accumulation, resp.

IT 411233-11-9
RL: PAC (Pharmacological activity); BIOL (Biological study)
(sirtuin modulators for treatment or prevention of obesity and insulin resistance disorders)

RN 411233-11-9 CAPLUS

CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

L3 ANSWER 18 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:104637 CAPLUS

DOCUMENT NUMBER: 144:184697

TITLE: Sirtuin related therapeutics and diagnostics for neurodegenerative diseases

INVENTOR(S): Sinclair, David A.; Tsai, Li-Huei; Nguyen, Minh Dang; Howitz, Konrad T.; Zipkin, Robert E.; Bitterman, Kevin J.

PATENT ASSIGNEE(S): President and Fellows of Harvard College, USA

SOURCE: U.S. Pat. Appl. Publ., 163 pp., Cont.-in-part of U.S. Ser. No. 884,022.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060025337	A1	20060202	US 2005-74374	20050307
US 20050096256	A1	20050505	US 2004-884022	20040701

US 20050136537	A1	20050623	US 2004-884879		20040701
US 7544497	B2	20090609			
AU 2006220554	A1	20060914	AU 2006-220554		20060307
CA 2599125	A1	20060914	CA 2006-2599125		20060307
WO 2006096780	A2	20060914	WO 2006-US8290		20060307
WO 2006096780	A3	20070118			

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

EP 1863461	A2	20071212	EP 2006-737459		20060307

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR

JP 2008533024	T	20080821	JP 2008-500879		20060307
JP 2007326872	A	20071220	JP 2007-203287		20070803

PRIORITY APPLN. INFO.:

US 2003-483949P	P	20030701
US 2003-532158P	P	20031223
US 2004-884022	A2	20040701
US 2004-884879	A2	20040701
JP 2006-518817	A3	20040701
US 2005-74374	A	20050307
WO 2006-US8290	W	20060307

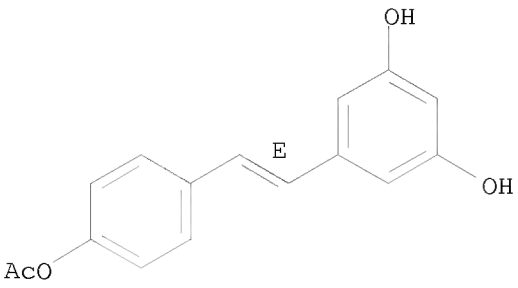
AB Provided herein are methods and compns. for modulating the activity of sirtuin deacetylase protein family members; p53 activity; apoptosis; lifespan and sensitivity to stress of cells and organisms. Exemplary methods comprise contacting a cell with an activating compound, such as a flavone, stilbene, flavanone, isoflavone, catechin, chalcone, tannin or anthocyanidin; or an inhibitory compound, such as a sphingolipid, e.g., sphingosine. Also disclosed herein are methods for treating, preventing or diagnosing a disease associated with neuronal cell death, e.g., a neurodegenerative disease.

IT 411233-11-9, BML-221
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sirtuin related therapeutics and diagnostics for neurodegenerative diseases)

RN 411233-11-9 CAPLUS

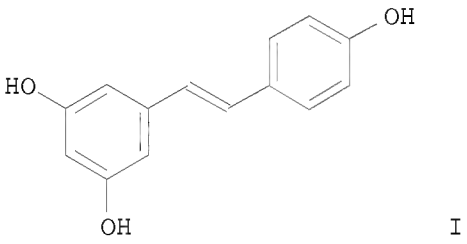
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

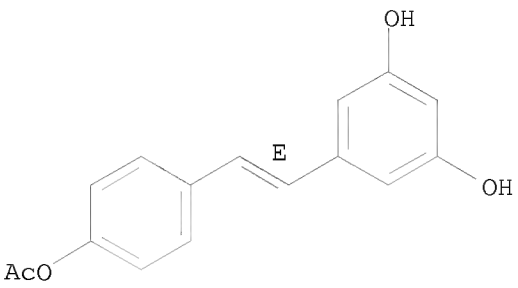
L3 ANSWER 19 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:46182 CAPLUS
DOCUMENT NUMBER: 146:162944
TITLE: An improved synthesis of resveratrol
AUTHOR(S): Farina, Angela; Ferranti, Carolina; Marra, Carolina
CORPORATE SOURCE: Dipartimento di Chimica dell'Universita "La Sapienza", Rome, 00185, Italy
SOURCE: Natural Product Research, Part A: Structure and Synthesis (2006), 20(3), 247-252
CODEN: NPRPC8
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 146:162944
GI



I

AB An improved total synthesis of resveratrol (I) was reported which increased the overall yield from 22 to 71%. The synthesis reported in the author's previous publication was made up of two fundamental steps, a Wittig reaction and a Heck coupling. The yield of the Wittig reaction was increased up to 98%. However, reaction conditions better than those previously reported for the Heck coupling were not found.
IT 411233-11-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(improved synthesis of resveratrol and its derivs. via Wittig olefination and stereoselective Heck coupling reactions)
RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 20 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:31590 CAPLUS
DOCUMENT NUMBER: 144:121811
TITLE: Compositions and methods for selectively activating human sirtuins
INVENTOR(S): Howitz, Konrad T.; Zipkin, Robert E.
PATENT ASSIGNEE(S): Biomol Research Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 91 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006004722	A2	20060112	WO 2005-US22874	20050624
WO 2006004722	A3	20090326		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
US 20060014705	A1	20060119	US 2005-166892	20050624
PRIORITY APPLN. INFO.:			US 2004-584943P P	20040630
OTHER SOURCE(S):		MARPAT 144:121811		

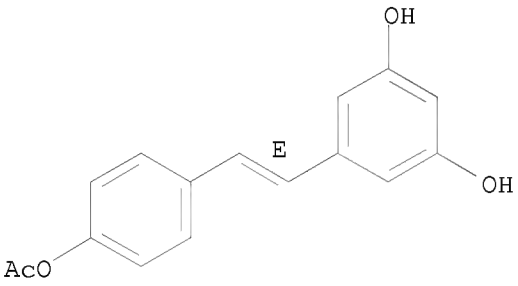
AB Methods for identifying selective activators and or inhibitors of the sirtuin enzymes (class III histone deacetylases) SIRT5 and/or SIRT1 and methods for using these selective activators and or inhibitors in the modulation of SIRT5 and/or SIRT1 are provided. Another aspect of the present invention relates to a method for modulating mitochondrial

acetyl-CoA synthetase (AceS2) activity in cells which comprises contacting the cells with a human SIRT5 activating compound or a human SIRT5 inhibiting compound Another aspect of the present invention relates to pharmaceutical compns. comprising a human SIRT5 activating compound and methods for their use as lipid-lowering agents. Such agents are expected to be useful in treatment of patients with hyperlipidemia and hypercholesterolemia as well as prevention and treatment of type 2 diabetes in patients.

IT 411233-11-9, BML 221
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. and methods for selectively activating or inhibiting human sirtuin enzymes such as SIRT1 or SIRT5 to modulate mitochondrial acetyl-CoA synthetase as lipid-lowering agents for treatment of diseases)

RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L3 ANSWER 21 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:1171066 CAPLUS
DOCUMENT NUMBER: 143:432651
TITLE: Carotenoid analogs or derivatives for the inhibition and amelioration of inflammation
INVENTOR(S): Lockwood, Samuel F.; O'Malley, Sean; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): Hawaii Biotech, Inc., USA
SOURCE: PCT Int. Appl., 129 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005102356	A1	20051103	WO 2005-US12811	20050414

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,

SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2564066	A1	20051103	CA 2005-2564066	20050414
EP 1750723	A1	20070214	EP 2005-735338	20050414

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR

PRIORITY APPLN. INFO.: US 2004-562195P P 20040414
WO 2005-US12811 W 20050414

OTHER SOURCE(S): MARPAT 143:432651

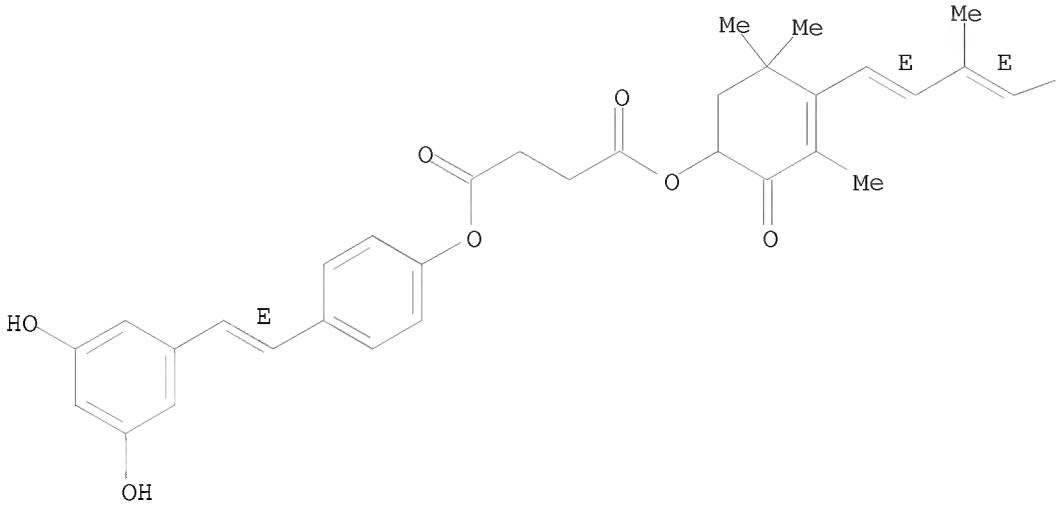
AB A method for inhibiting and/or ameliorating the occurrence of diseases in a human subject whereby a subject is administered a carotenoid analog or derivative, either alone or in combination with another carotenoid analog or derivative In some embodiments, the administration of analogs or derivs. of carotenoids may inhibit and/or ameliorate the occurrence of diseases in subjects. In some embodiments, analogs or derivs. of carotenoids may be water-soluble and/or water dispersible. Maladies that may be treated with analogs or derivs. of carotenoids embodied herein may include diseases that provoke or trigger an inflammatory response. In an embodiment, asthma may be treated with analogs or derivs. of carotenoids embodied herein. In an embodiment, administering analogs or derivs. of carotenoids embodied herein to a subject may control or affect the bioavailability of eicosanoids. In an embodiment, atherosclerosis may be treated with analogs or derivs. of carotenoids embodied herein. In an embodiment, administering the analogs or derivs. of carotenoids embodied herein to a subject may control or affect the bioavailability of 5-LO-catalyzed eicosanoid metabolites. In an embodiment, 5-LO-catalyzed eicosanoid metabolites that may be controlled or affected by administering analogs or derivs. of carotenoids to a subject may include proinflammatory effector mols. (e.g., leukotrienes).

IT 835885-11-5 835885-12-6
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carotenoid analogs or derivs. for inhibition and amelioration of inflammation)

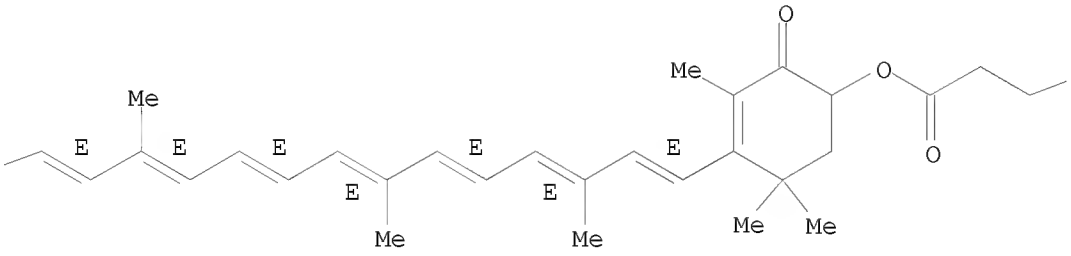
RN 835885-11-5 CAPLUS
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

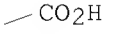
PAGE 1-A



PAGE 1-B



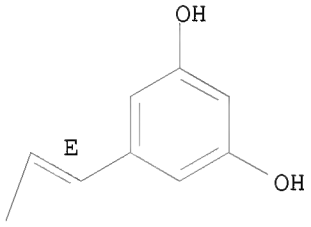
PAGE 1-C



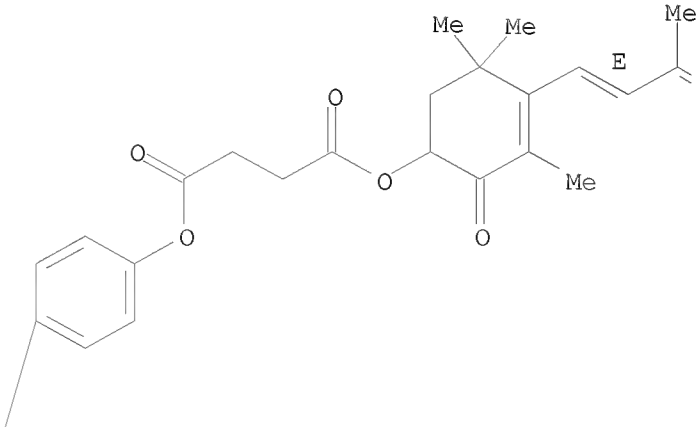
RN 835885-12-6 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

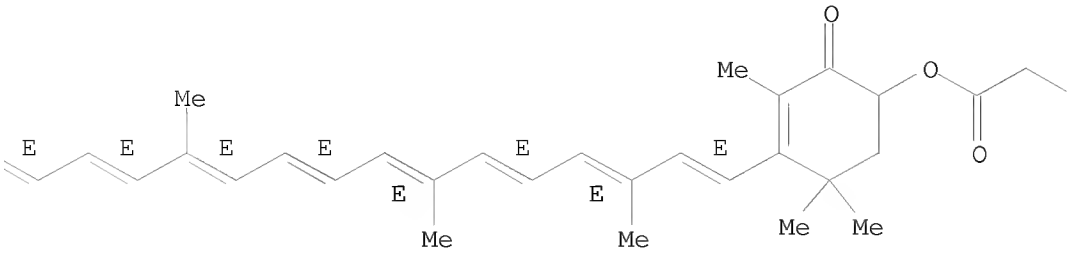
PAGE 1-C



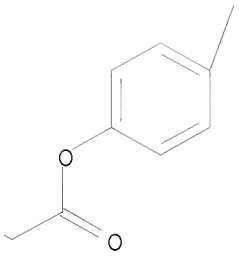
PAGE 2-A



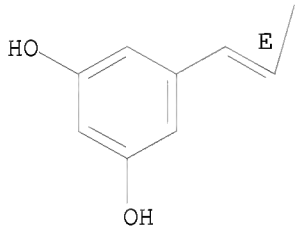
PAGE 2-B



PAGE 2-C



PAGE 3-A



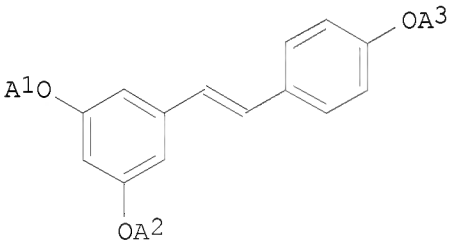
OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 22 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:696641 CAPLUS
DOCUMENT NUMBER: 143:172689
TITLE: Preparation of resveratrol ester analogs as sirtuin activators
INVENTOR(S): Andrus, Merritt B.; Liu, Jing
PATENT ASSIGNEE(S): Brigham Young University Technology Transfer Office, USA

SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005069998	A2	20050804	WO 2005-US2229	20050119
WO 2005069998	A3	20060105		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2005207029	A1	20050804	AU 2005-207029	20050119
CA 2593576	A1	20060804	CA 2005-2593576	20050119
EP 1753708	A2	20070221	EP 2005-711939	20050119
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
US 20080255382	A1	20081016	US 2006-597335	20060721
PRIORITY APPLN. INFO.:			US 2004-537622P P	20040120
			US 2004-616537P P	20041006
			WO 2005-US2229 W	20050119

OTHER SOURCE(S): CASREACT 143:172689; MARPAT 143:172689
GI



I

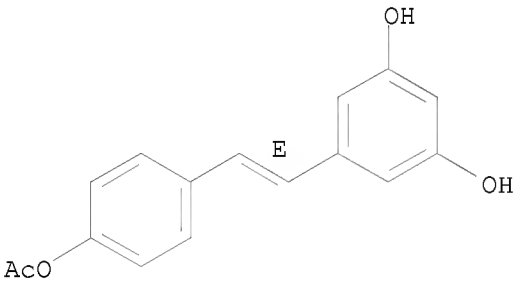
AB Resveratrol and ester analogs of formula I [A1-A3 = protecting group, acyl] are prepared The compds. are made from a multi-step process including a N-heterocyclic carbene-type ligand coupling in the presence of a base with benzoyl halide and styrene coupling partners. These compds. show increased stability for use in the food, cosmetic and pharmaceutical industries (no data). Thus, resveratrol (I; A1-A3 = H) was prepared by decarbonylative Heck coupling of 3,5-diacetoxybenzoyl chloride using Pd(OAc)2 and 1,3-bis(2,6-diisopropylphenyl)imidazolinium chloride and

3-acetoxystyrene followed by deprotection with NaOH.

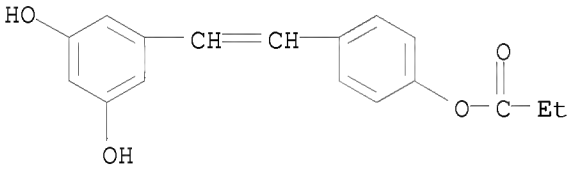
IT 411233-11-9P 861446-31-3P 861446-36-8P
861446-41-5P 861446-46-0P 861446-51-7P
861446-56-2P 861446-61-9P 861446-66-4P
861446-71-1P 861446-76-6P 861446-81-3P
861446-86-8P 861446-91-5P 861446-96-0P
861447-01-0P 861447-06-5P
RL: COS (Cosmetic use); FFD (Food or feed use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of resveratrol ester analogs as sirtuin activators)

RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

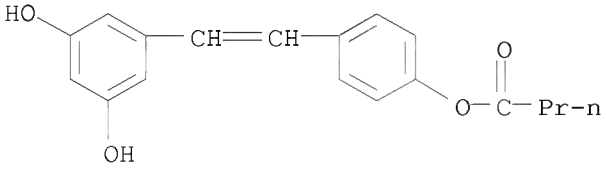
Double bond geometry as shown.



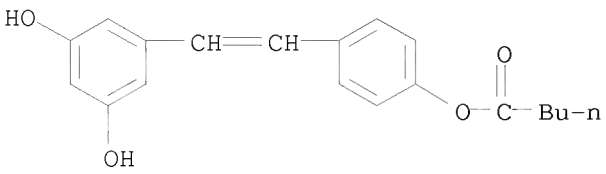
RN 861446-31-3 CAPLUS
CN 1,3-Benzenediol, 5-[2-[4-(1-oxopropoxy)phenyl]ethenyl]- (CA INDEX NAME)



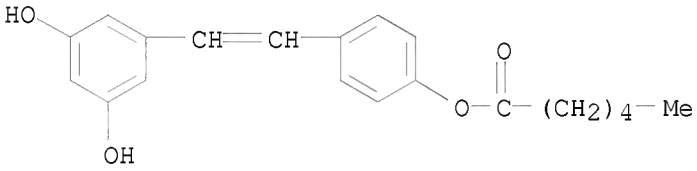
RN 861446-36-8 CAPLUS
CN Butanoic acid, 4-[2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)



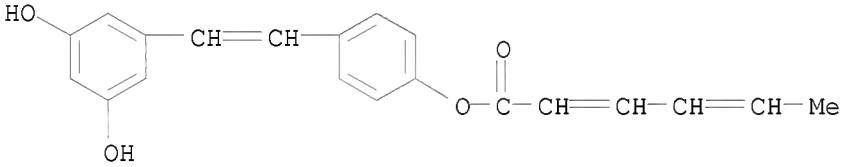
RN 861446-41-5 CAPLUS
CN Pentanoic acid, 4-[2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)



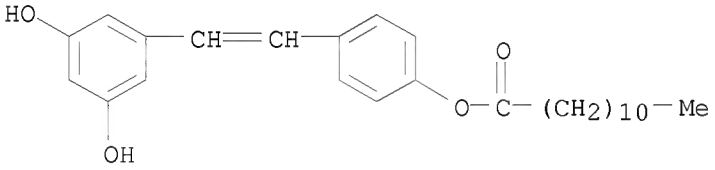
RN 861446-46-0 CAPLUS
CN Hexanoic acid, 4-[2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)



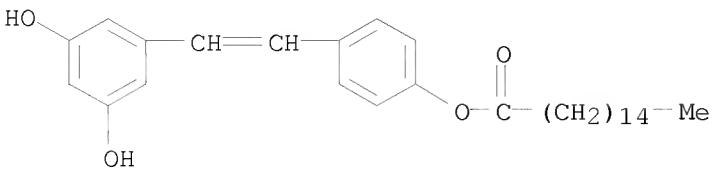
RN 861446-51-7 CAPLUS
CN 2,4-Hexadienoic acid, 4-[2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)



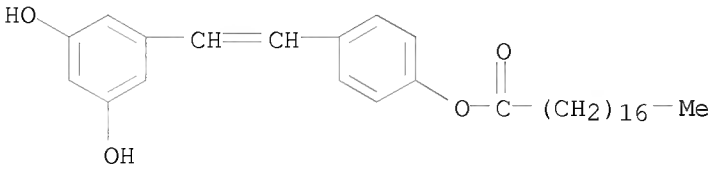
RN 861446-56-2 CAPLUS
CN Dodecanoic acid, 4-[2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)



RN 861446-61-9 CAPLUS
CN Hexadecanoic acid, 4-[2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)

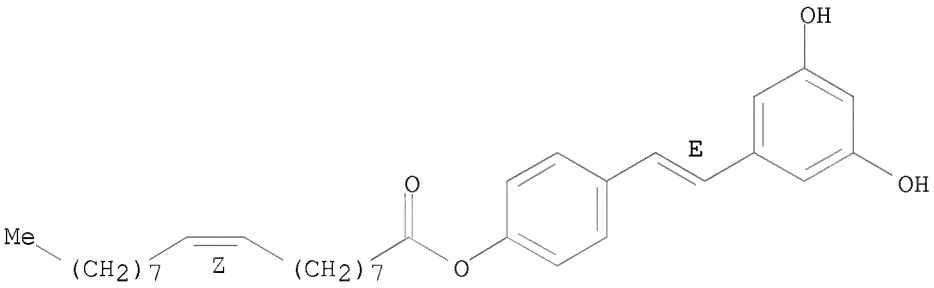


RN 861446-66-4 CAPLUS
CN Octadecanoic acid, 4-[2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)



RN 861446-71-1 CAPLUS
CN 9-Octadecenoic acid (9Z)-, 4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)

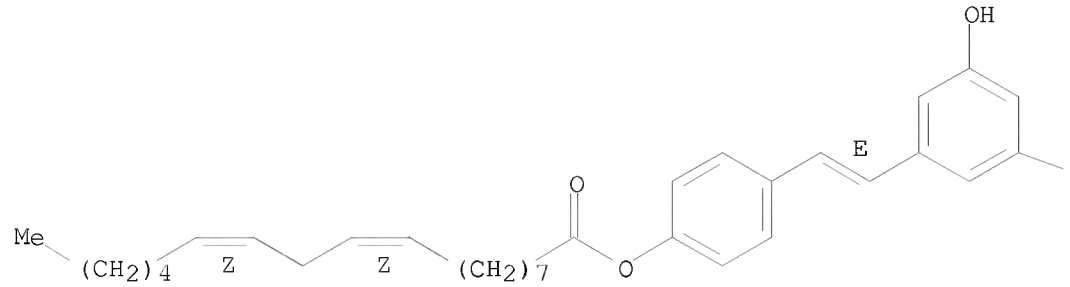
Double bond geometry as shown.



RN 861446-76-6 CAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)-, 4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)

Double bond geometry as shown.

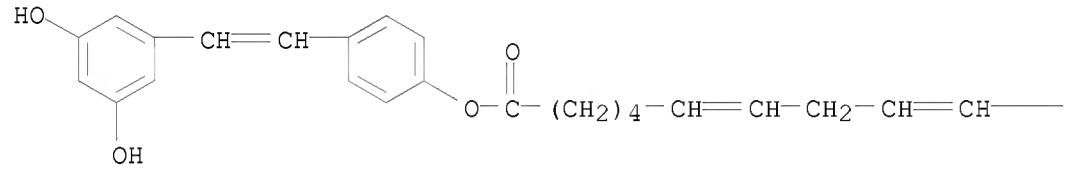
PAGE 1-A



PAGE 1-B

RN 861446-81-3 CAPLUS
CN 6,9,12-Octadecatrienoic acid, 4-[2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)

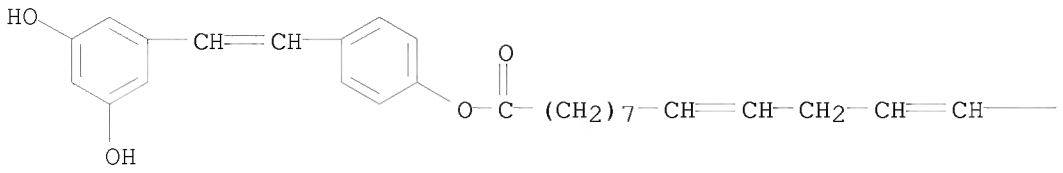
PAGE 1-A



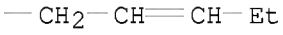
PAGE 1-B

RN 861446-86-8 CAPLUS
CN 9,12,15-Octadecatrienoic acid, 4-[2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)

PAGE 1-A

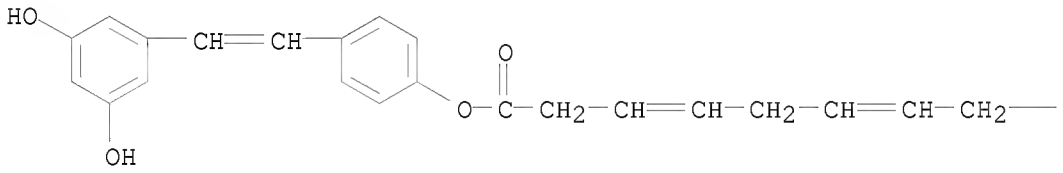


PAGE 1-B

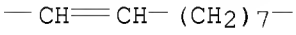


RN 861446-91-5 CAPLUS
CN 3,6,9-Octadecatrienoic acid, 4-[2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)

PAGE 1-A

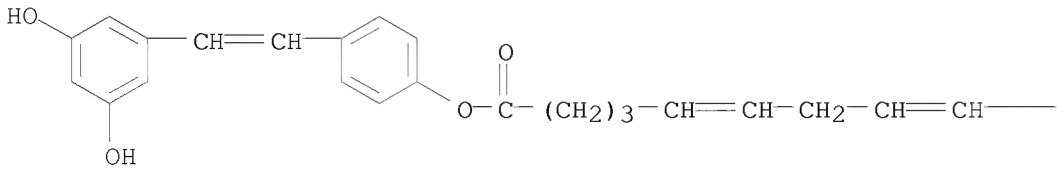


PAGE 1-B

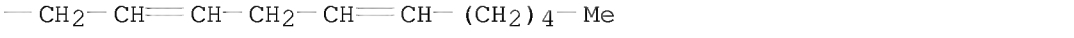


RN 861446-96-0 CAPLUS
CN 5,8,11,14-Eicosatetraenoic acid, 4-[2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)

PAGE 1-A

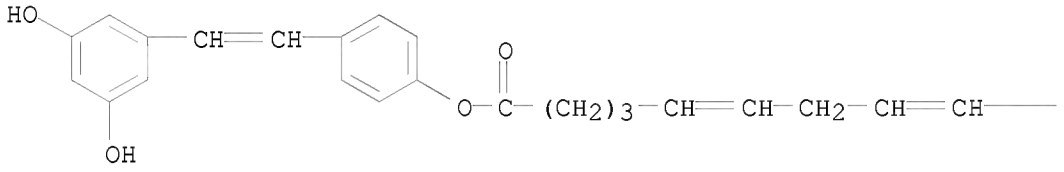


PAGE 1-B

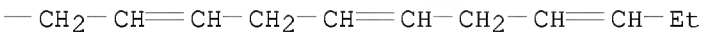


RN 861447-01-0 CAPLUS
CN 5,8,11,14,17-Eicosapentaenoic acid,
4-[2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)

PAGE 1-A

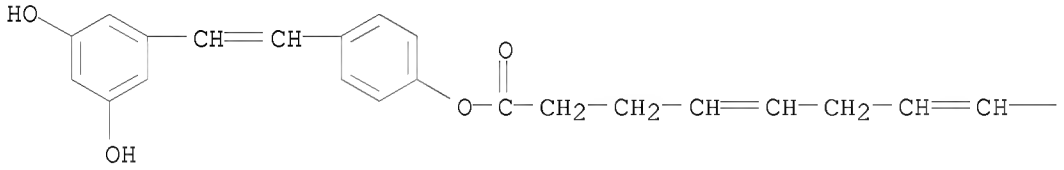


PAGE 1-B

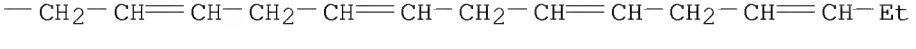


RN 861447-06-5 CAPLUS
CN 4,7,10,13,16,19-Docosahexaenoic acid,
4-[2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



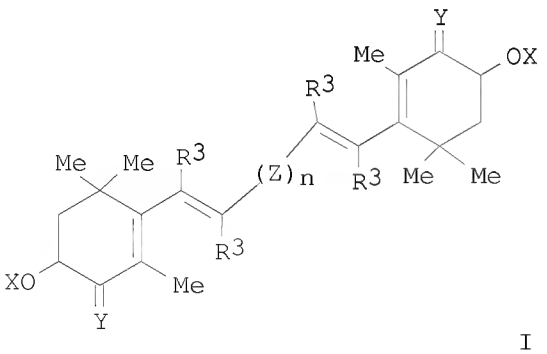
OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 23 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:588393 CAPLUS
DOCUMENT NUMBER: 143:97547
TITLE: Carotenoid ether analogs or derivatives for controlling connexin 43 expression
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 128 pp., Cont.-in-part of U.S. Ser. No. 629,538.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050148517	A1	20050707	US 2004-793651		20040304
US 20040162329	A1	20040819	US 2003-629538		20030729
US 7145025	B2	20061205			
US 20050065097	A1	20050324	US 2004-793696		20040304
US 20050075337	A1	20050407	US 2004-793702		20040304
US 20060229446	A1	20061012	US 2006-357897		20060217
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505
			US 2003-472831P	P	20030522
			US 2003-473741P	P	20030528
			US 2003-485304P	P	20030703
			US 2003-629538	A2	20030729

OTHER SOURCE(S): CASREACT 143:97547; MARPAT 143:97547
GI



I

AB A method of controlling (e.g., influencing or affecting) connexin 43 expression in a subject may include administering to the subject an effective amount of a pharmaceutically acceptable formulation. In some

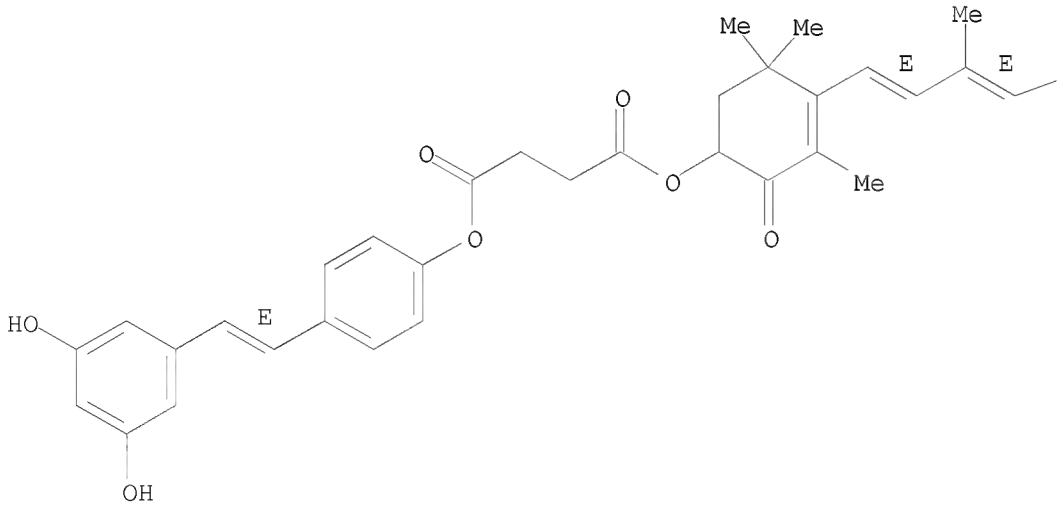
embodiments, controlling connexin 43 expression in a subject may effectively treat cardiac arrhythmia and/or cancerous and pre-cancerous cells in a subject. The pharmaceutically acceptable formulation may include a synthetic analog or derivative I [R1 = alkyl-N+(R2)3, aryl-N+(R2)3, , alkyl-CO2-, aryl-CO2-, (un)phosphorylated amino acid-NH3+, polyethylene glycol, dextran, H, alkyl, aryl, alkali salt; R2 = H, alkyl, aryl; R3 = H, Me; X = P(:O)(OR1)2, S(:O)(OR1)2, X1, alkyl-N+(R1)3, aryl-N+(R1)3, alkyl-CO2-, aryl-CO2-, (un)phosphorylated amino acid-NH3+, polyethylene glycol, dextran, alkyl, aryl; Y = O, H2; Z = CR3:CR3-(E); n = 5 - 12; with the proviso that the carotenoid has at least one chiral center] of a carotenoid. The subject may be administered a carotenoid analog or derivative, either alone or in combination with another carotenoid analog or derivative, or co-antioxidant formulation. The carotenoid analog may include a conjugated polyene with between 7 to 14 double bonds. The conjugated polyene may include a cyclic ring including at least one substituent. In some embodiments, a cyclic ring of a carotenoid analog or derivative may include at least one substituent. The substituent may be coupled to the cyclic ring with an ether functionality.

IT 835885-11-5P 835885-12-6P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(carotenoid ether analogs or derivs. for controlling connexin 43 expression)

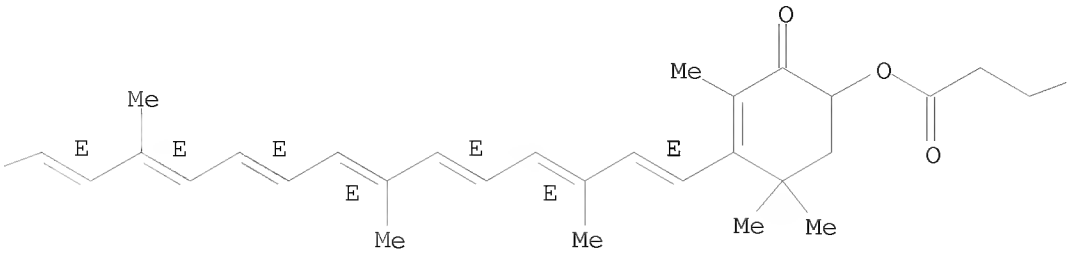
RN 835885-11-5 CAPLUS
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

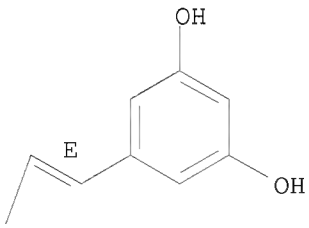


PAGE 1-C

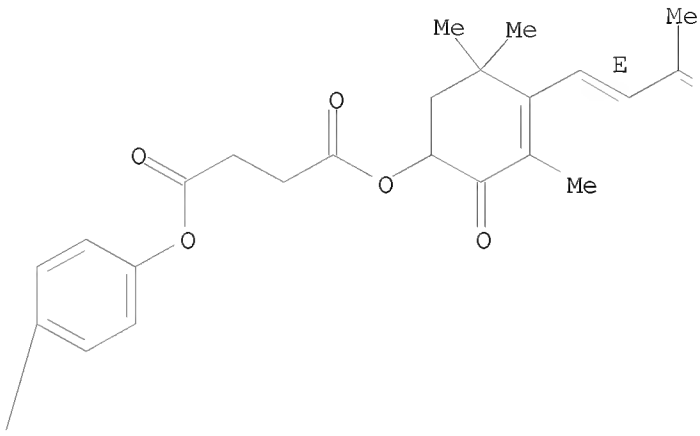
RN 835885-12-6 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

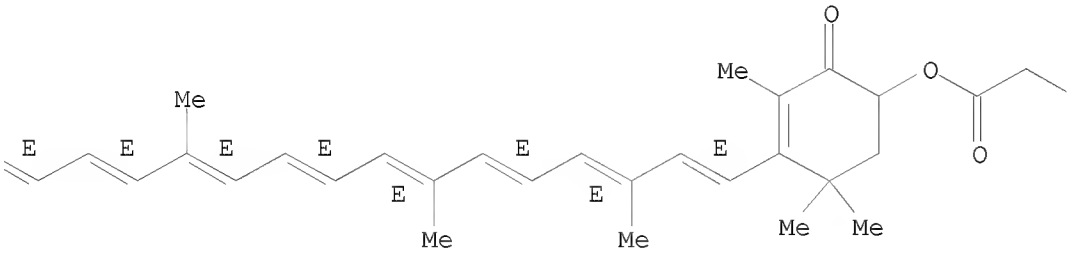
PAGE 1-C



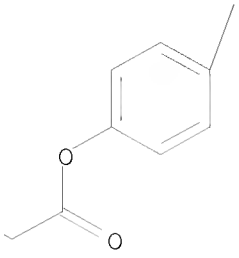
PAGE 2-A



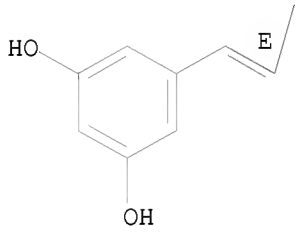
PAGE 2-B



PAGE 2-C



PAGE 3-A



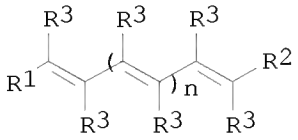
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

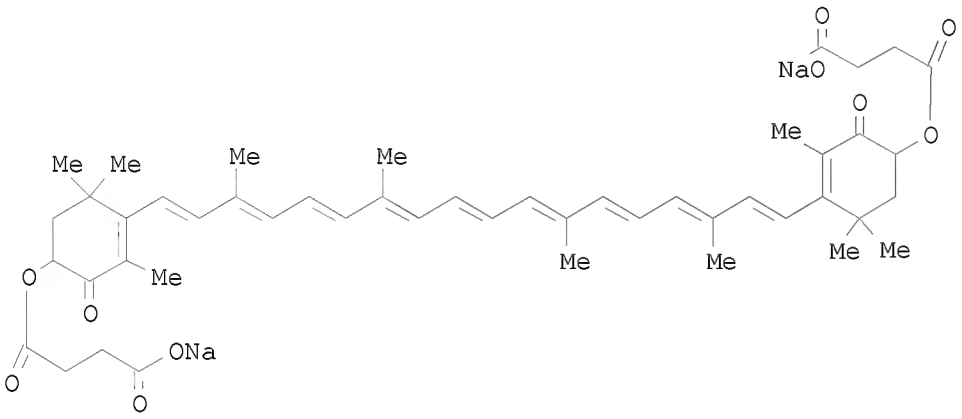
L3 ANSWER 24 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:570539 CAPLUS
DOCUMENT NUMBER: 143:78324
TITLE: Carotenoid analogs or derivatives for the inhibition and amelioration of ischemic reperfusion injury
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 135 pp., Cont.-in-part of U.S. Ser. No. 629,538.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050143475	A1	20050630	US 2004-793661		20040304
US 20040162329	A1	20040819	US 2003-629538		20030729
US 7145025	B2	20061205			
US 20050065097	A1	20050324	US 2004-793696		20040304
US 20050075337	A1	20050407	US 2004-793702		20040304
US 20060229446	A1	20061012	US 2006-357897		20060217
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505
			US 2003-472831P	P	20030522

US 2003-473741P P 20030528
US 2003-485304P P 20030703
US 2003-629538 A2 20030729
OTHER SOURCE(S): CASREACT 143:78324; MARPAT 143:78324

GI





AB A method of treating ischemic reperfusion injury in a subject. The method may include administering to the subject an effective amount of a pharmaceutically acceptable formulation. The pharmaceutically acceptable formulation may include a synthetic analog or derivative I [R1, R2 = acyclic alkene, C4-10-ring with at least one substituent; R3 = H, Me (may be same or different); n = 5 - 12] of a carotenoid. The subject may be administered a carotenoid analog or derivative, either alone or in combination with another carotenoid analog or derivative, or co-antioxidant formulation. The carotenoid analog may include a conjugated polyene with between 7 to 14 double bonds. The conjugated polyene may include an acyclic alkene including at least one substituent and/or a cyclic ring including at least one substituent. In some embodiments, a carotenoid analog or derivative may include at least one substituent. Thus, (±)-astaxanthin disuccinate disodium salt (II) was prepared from (±)-astaxanthin via acylation with succinic anhydride in CH2Cl2 containing EtN(CHMe2)2 and DMAP followed by treatment with NaOEt in EtOH. II was tested for: super oxide inhibition [95% inhibition at 3 mM]; infarct size reduction in Sprague-Rawley rats and Cardax-treated rabbits [55.4%]; plasma pharmacokinetics; tissue accumulation; reduction of alanine aminotransferase elevations in mice; and optical properties of dAST derivative with Human Serum Albumin.

IT 835885-11-5P 835885-12-6P

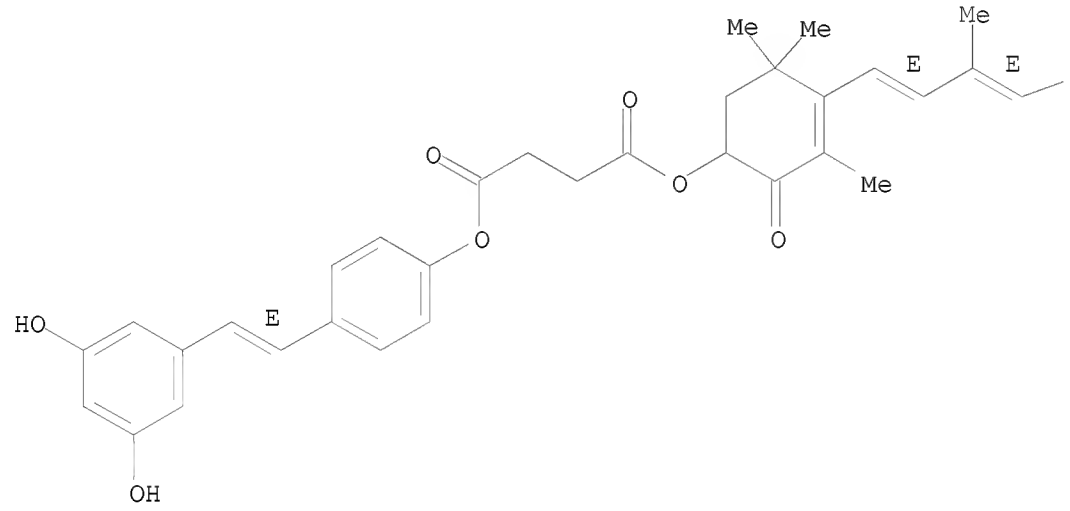
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(carotenoid analogs or derivs. for inhibition and amelioration of ischemic reperfusion injury)

RN 835885-11-5 CAPLUS

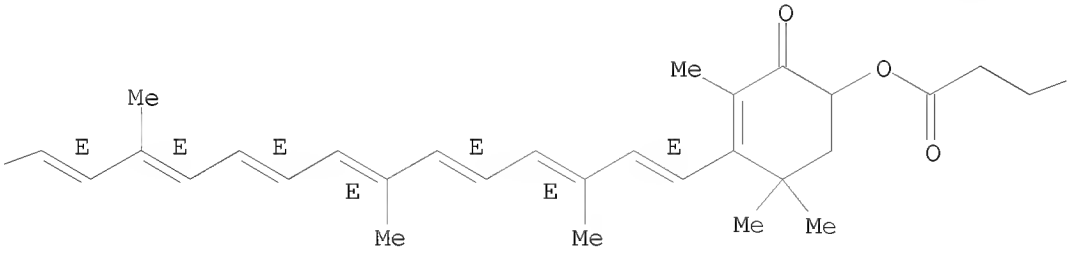
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

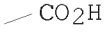
PAGE 1-A



PAGE 1-B



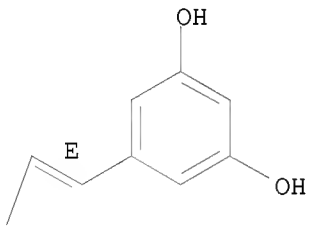
PAGE 1-C



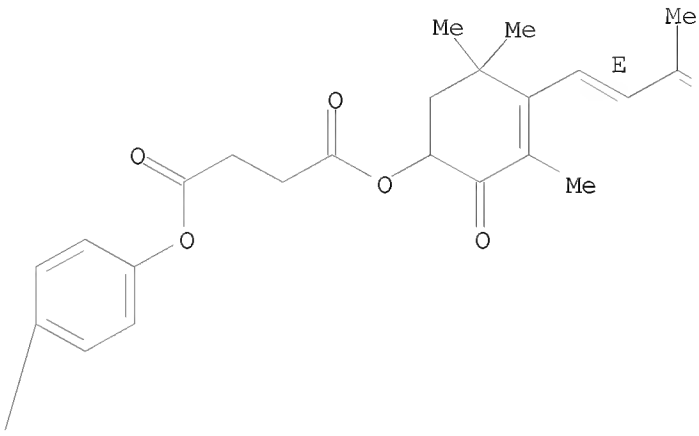
RN 835885-12-6 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

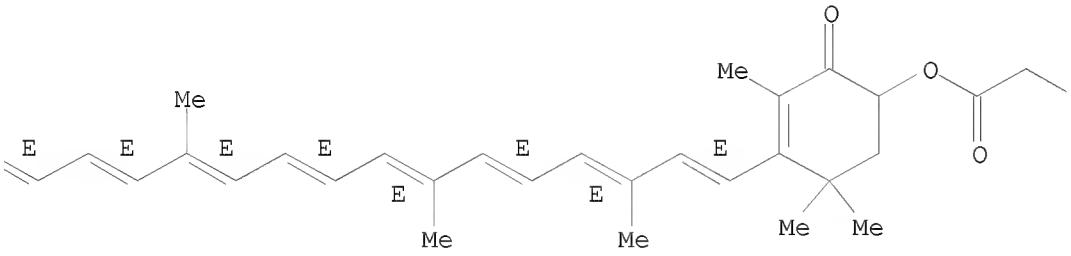
PAGE 1-C



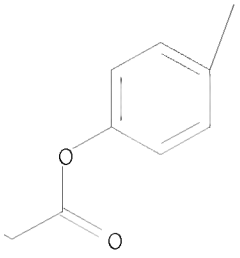
PAGE 2-A



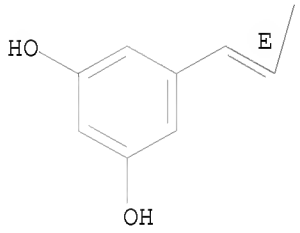
PAGE 2-B



PAGE 2-C



PAGE 3-A



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L3 ANSWER 25 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:536449 CAPLUS
DOCUMENT NUMBER: 144:86610
TITLE: Regioselective acylation of several polyhydroxylated natural compounds by Candida antarctica lipase B
AUTHOR(S): Teng, Rong-Wei; Bui, Thi-Kim-Anh; McManus, David; Armstrong, David; Mau, Shaio-Lim; Bacic, Antony
CORPORATE SOURCE: CRC for Bioproducts, School of Botany, The University of Melbourne, 3010, Australia
SOURCE: Biocatalysis and Biotransformation (2005), 23(2), 109-116
CODEN: BOBOEQ; ISSN: 1024-2422
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 144:86610
AB Regioselective acylation of four polyhydroxylated natural compds., deacetyl asperulosidic acid (1), asperulosidic acid (2), puerarin (3) and resveratrol (4) by Candida antarctica Lipase B in the presence of various acyl donors (vinyl acetate, vinyl decanoate or vinyl cinnamoate) was studied. Compds. 1, 2 and 4 were regioselectively acetylated with vinyl acetate to afford products, 3'-O-acetyl-10-O-deacetylasperulosidic acid, 3',6'-O-diacetyl-10-O-deacetylasperulosidic acid, 3'-O-acetylasperulosidic acid, 3',6'-O-diacetylasperulosidic acid, 4'-O-acetylresveratrol, resp., with yields of 22 to 50%, while reactions with vinyl decanoate and vinyl cinnamoate were slow with lower yields. Compound 3 was readily acylated with all three acyl donors and quant. converted to products 6"-O-acetylpuerarin, 6"-O-decanoylpuerarin, 6"-O-cinnamoylpuerarin, resp.

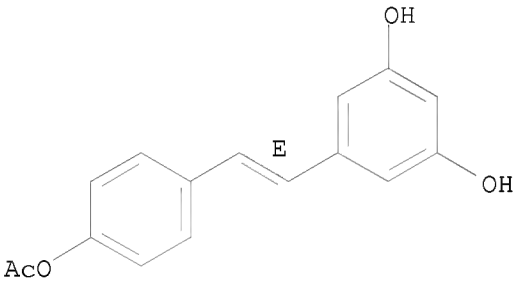
The structures of these acylated products were determined by spectroscopic methods (MS and NMR).

IT 411233-11-9P, 4'-O-Acetylresveratrol
RL: BMF (Bioindustrial manufacture); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(regioselective acylation of several polyhydroxylated natural compds. by Candida antarctica lipase B)

RN 411233-11-9 CAPLUS

CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 26 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:453807 CAPLUS

DOCUMENT NUMBER: 142:482170

TITLE: Carotenoid analogs or derivatives for the inhibition and amelioration of disease

INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff

PATENT ASSIGNEE(S): Cardax Pharmaceuticals, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 136 pp., Cont.-in-part of U.S. Ser. No. 629,538.
CODEN: USXXCO

DOCUMENT TYPE: Patent

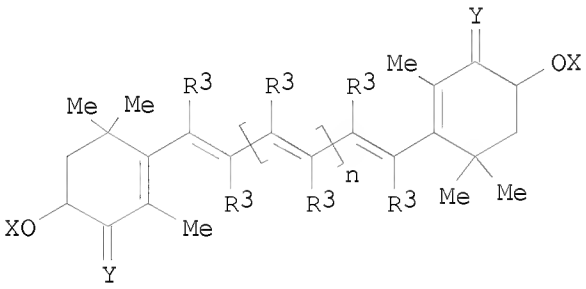
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 16

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050113372	A1	20050526	US 2004-793670		20040304
US 7521584	B2	20090421			
US 20040162329	A1	20040819	US 2003-629538		20030729
US 7145025	B2	20061205			
US 20050065097	A1	20050324	US 2004-793696		20040304
US 20050075337	A1	20050407	US 2004-793702		20040304
US 20060229446	A1	20061012	US 2006-357897		20060217
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505

US 2003-472831P P 20030522
US 2003-473741P P 20030528
US 2003-485304P P 20030703
US 2003-629538 A2 20030729
OTHER SOURCE(S): CASREACT 142:482170; MARPAT 142:482170
GI



I

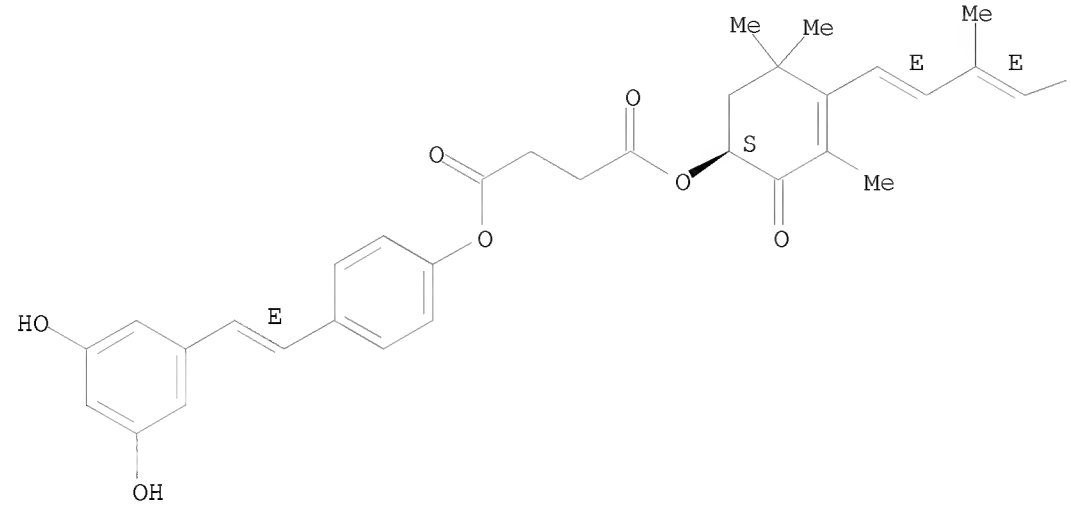
AB The preparation and evaluation of carotenoid derivs. I (R1, R2 = independently an acyclic alkene comprising at least one substituent, or a cyclic ring comprising at least one substituent; R3 = independently H or Me; n = 5-12) as antioxidants for the treatment of related disease is described. Thus, astaxanthin in CH2Cl2 was treated with DIPEA and succinic anhydride to yield the disuccinic ester.

IT 653566-06-4P 653566-07-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of carotenoid analogs as antioxidants for the inhibition and amelioration of liver disease)

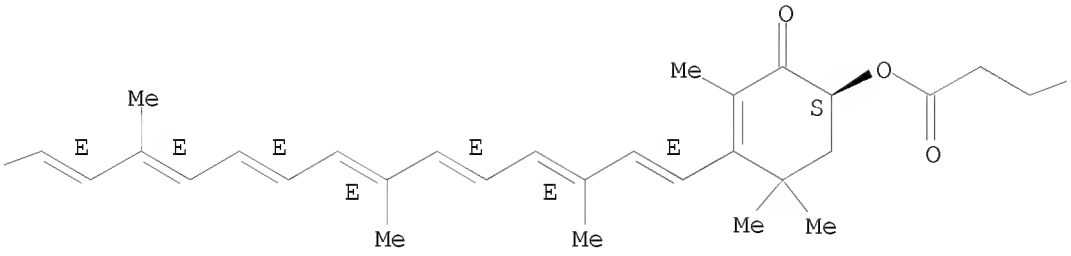
RN 653566-06-4 CAPLUS
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

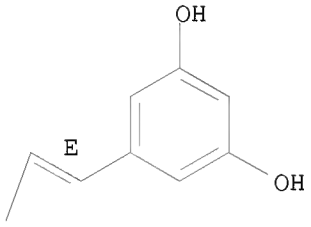


PAGE 1-C

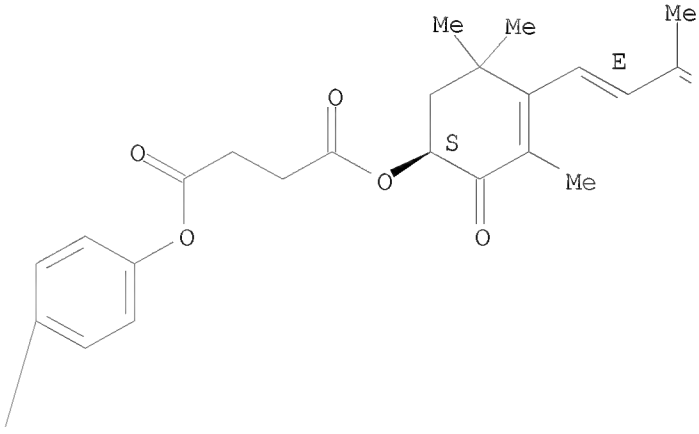
RN 653566-07-5 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

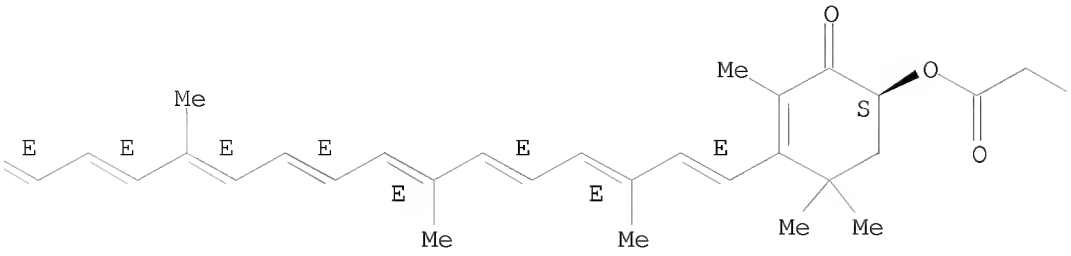
PAGE 1-C



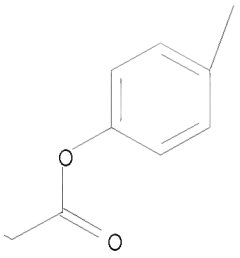
PAGE 2-A



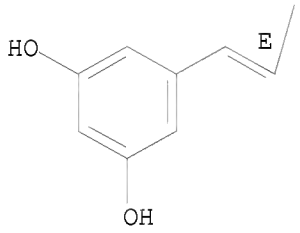
PAGE 2-B



PAGE 2-C



PAGE 3-A



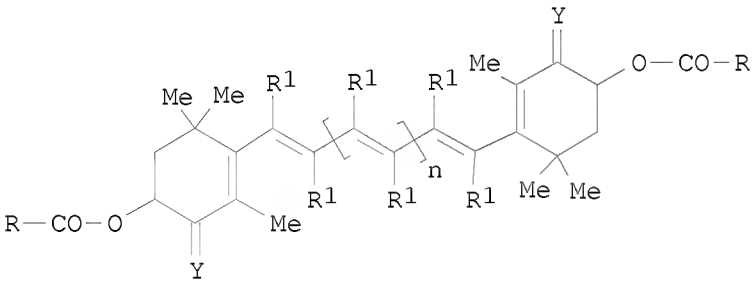
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L3 ANSWER 27 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:371018 CAPLUS
DOCUMENT NUMBER: 142:411509
TITLE: Preparation of carotenoid ester analogs or derivatives for the inhibition and amelioration of liver disease
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 139 pp., Cont.-in-part of U.S.

Ser. No. 629,538.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050090469	A1	20050428	US 2004-793660		20040304
US 20040162329	A1	20040819	US 2003-629538		20030729
US 7145025	B2	20061205			
US 20050065097	A1	20050324	US 2004-793696		20040304
US 20050075337	A1	20050407	US 2004-793702		20040304
US 20060229446	A1	20061012	US 2006-357897		20060217
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505
			US 2003-472831P	P	20030522
			US 2003-473741P	P	20030528
			US 2003-485304P	P	20030703
			US 2003-629538	A2	20030729

OTHER SOURCE(S): CASREACT 142:411509; MARPAT 142:411509
GI



I

AB A method of treating liver disease in a subject comprising administering to the subject an effective amount of a pharmaceutically acceptable formulation of a synthetic analog or derivative of a carotenoid. Carotenoid esters of formula I [R = (substituted) OH, (substituted) alkylamino, amino acid, alkyl, etc.; each R1 = H, Me; n = 5-12] are prepared The subject may be administered a carotenoid analog or derivative, either alone or in combination with another carotenoid analog or derivative, or co-antioxidant formulation. Thus, astaxanthin disuccinate was prepared from astaxanthin and succinic anhydride. The prepared compds. were tested for inhibition of disease and pharmacokinetics.

IT 653566-06-4P 653566-07-5P 835885-11-5P
835885-12-6P
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of carotenoid esters for the treatment of liver disease)

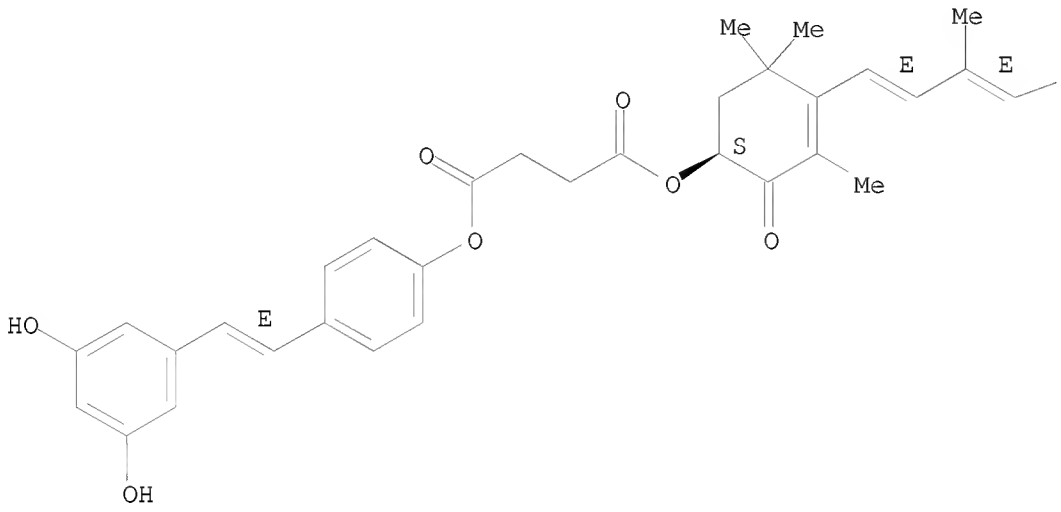
RN 653566-06-4 CAPLUS

CN β,β-Carotene-4,4'-dione,
3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-

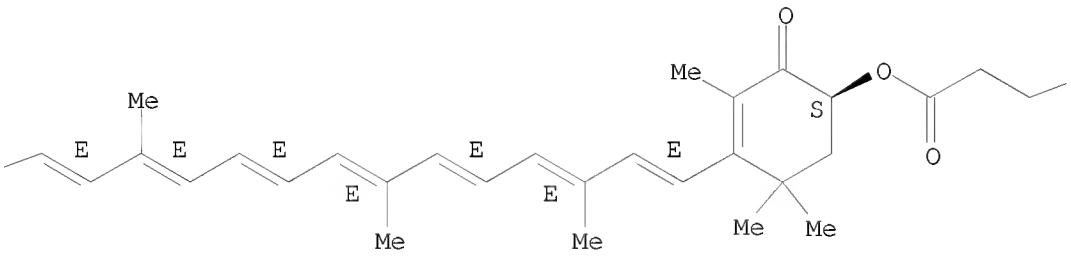
dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

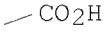
PAGE 1-A



PAGE 1-B



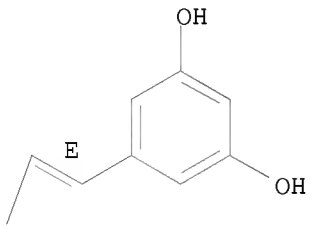
PAGE 1-C



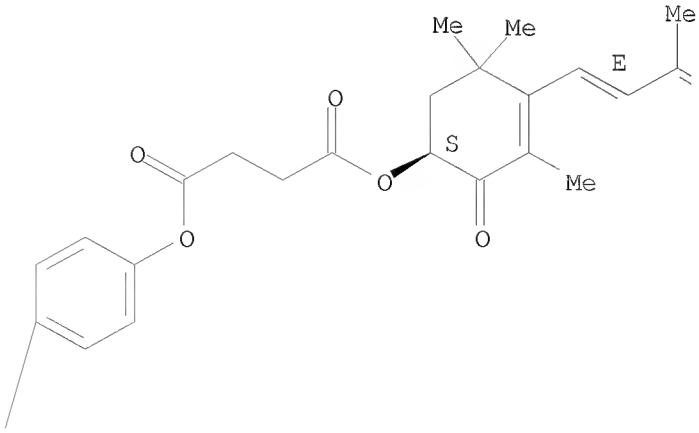
RN 653566-07-5 CAPLUS
CN β,β-Carotene-4,4'-dione, 3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

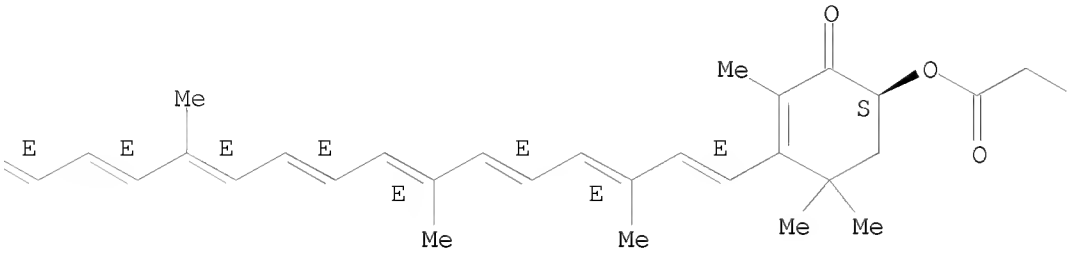
PAGE 1-C



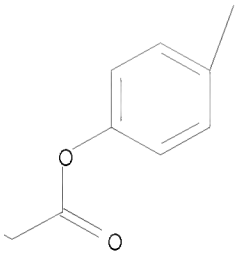
PAGE 2-A



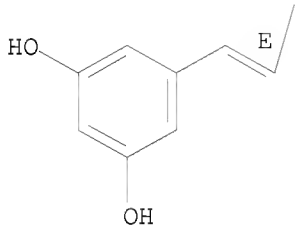
PAGE 2-B



PAGE 2-C



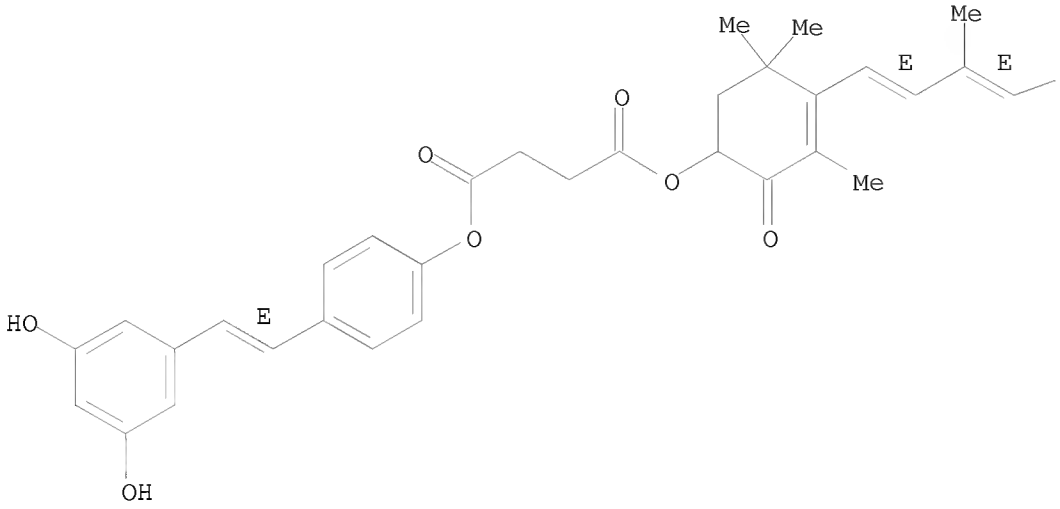
PAGE 3-A



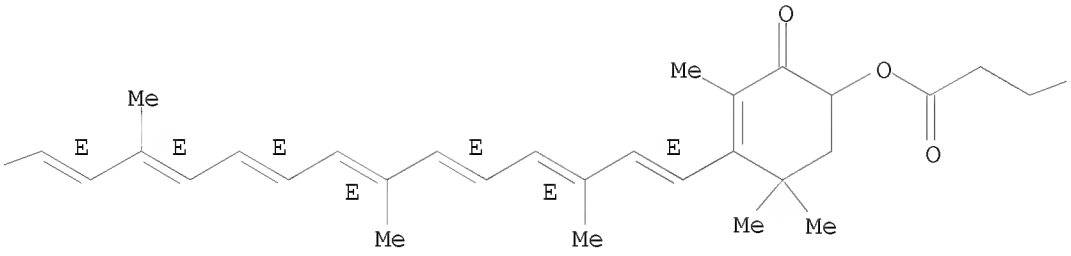
RN 835885-11-5 CAPLUS
CN β,β-Carotene-4,4'-dione,
3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-
dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

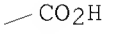
PAGE 1-A



PAGE 1-B



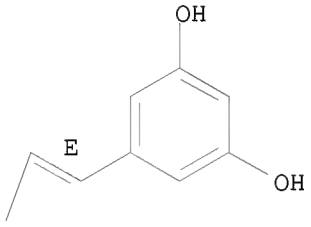
PAGE 1-C



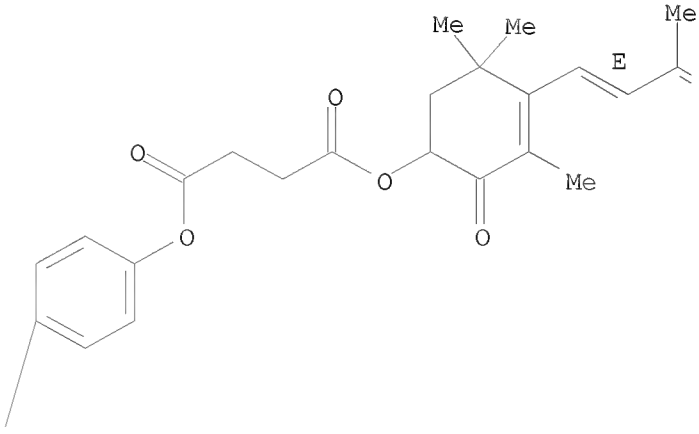
RN 835885-12-6 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

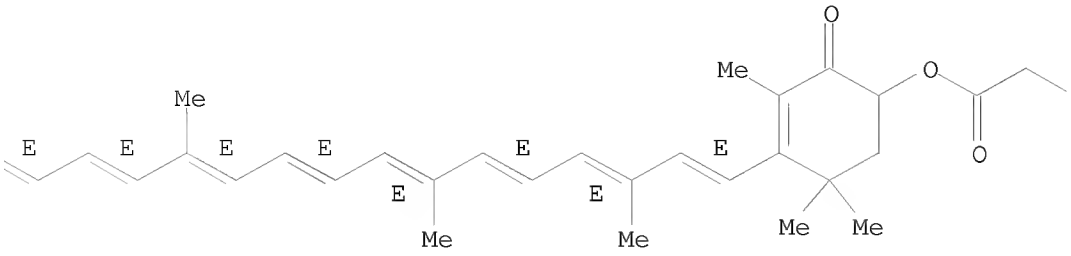
PAGE 1-C



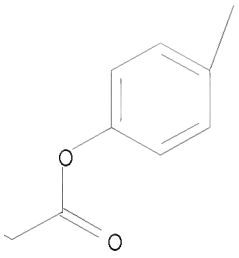
PAGE 2-A



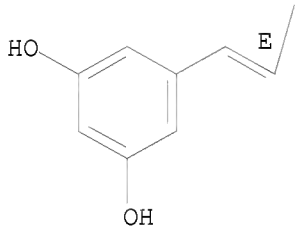
PAGE 2-B



PAGE 2-C



PAGE 3-A



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L3 ANSWER 28 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:303393 CAPLUS
DOCUMENT NUMBER: 142:373996
TITLE: Pharmaceutical compositions including carotenoid ester analogs or derivatives for the inhibition and amelioration of disease
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): Cardax Pharmaceuticals, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 131 pp., Cont.-in-part of U.S. Ser. No. 629,538.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050075316	A1	20050407	US 2004-793692		20040304
US 7320997	B2	20080122			
US 20040162329	A1	20040819	US 2003-629538		20030729
US 7145025	B2	20061205			
US 20050065097	A1	20050324	US 2004-793696		20040304
US 20050075337	A1	20050407	US 2004-793702		20040304
US 20060229446	A1	20061012	US 2006-357897		20060217
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505
			US 2003-472831P	P	20030522
			US 2003-473741P	P	20030528
			US 2003-485304P	P	20030703
			US 2003-629538	A2	20030729

OTHER SOURCE(S): CASREACT 142:373996; MARPAT 142:373996
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A method for inhibiting and/or ameliorating the occurrence of diseases associated with reactive oxygen species, reactive nitrogen species, radicals and/or non-radicals in a subject whereby a subject is administered a carotenoid analog or derivative, e.g., I [X1 = (CR3:CR3)z-(E); z = 5 - 12; R3 = H, Me; Y = O, H2; R = OR1, R1; R1 = alkyl-+N(R2)3, aryl-+N(R2)3, alkyl-CO2-, (un)phosphorylated N-protonated amino acid, polyethylene glycol, dextran, H, alkyl, aryl; R2 = H, alkyl, aryl], either alone or in combination with another carotenoid analog or derivative, or co-antioxidant formulation. The analog or derivative is administered such that the subject's risk of experiencing diseases associated with reactive oxygen species, reactive nitrogen species, radicals and/or non-radicals may be thereby reduced. The analog or analog combination may be administered to a subject for the inhibition and/or amelioration of any disease that involves production of reactive oxygen species, reactive nitrogen species, radicals and/or non-radicals. In some embodiments, the invention may include a pharmaceutical composition including a carotenoid analog or derivative
The carotenoid analog may include a conjugated polyene with between 7 to 14 double bonds. The conjugated polyene may include a cyclic ring including at least one substituent. In some embodiments, a cyclic ring of a carotenoid analog or derivative may include at least one substituent. The substituent may be coupled to the cyclic ring with an ester functionality. In some embodiments, a pharmaceutical composition may include a biol. inactive carrier. The pharmaceutical composition may be adapted to be administered to a human subject. Thus, (±)-Astaxanthin disuccinate disodium salt, was prepared, separated into pure stereoisomers, e.g., meso isomer [II; X2 =

CMe:CHCH:CHCMe:CHCH:CHCH:CMeCH:CHCH:CMe-(E)-all], and tested for: water solubility, radical cation formation, induction of connexin 43 protein expression, induction of intercellular gap junctional communication, direct superoxide anion scavenging as determined by EPR and bioavailability following oral administration.

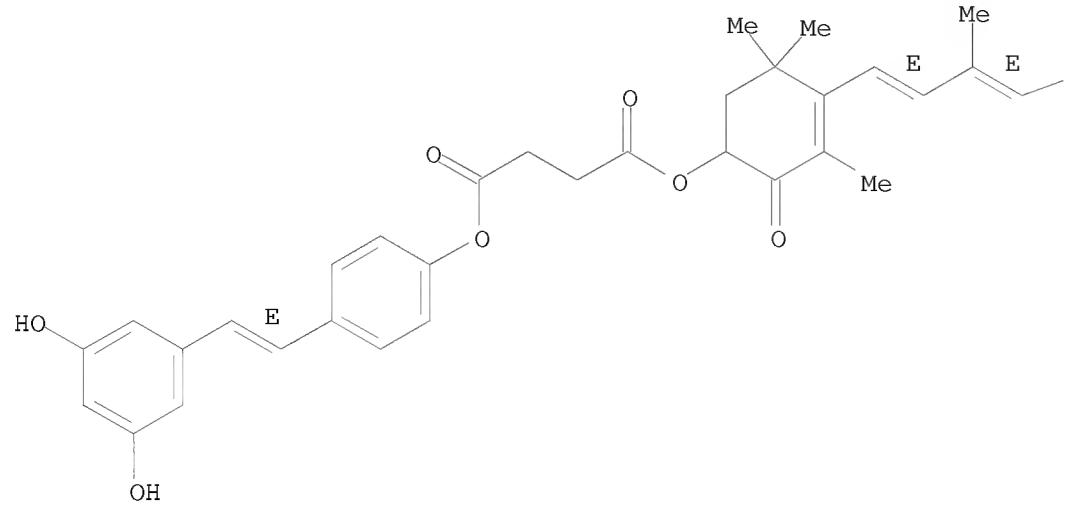
IT 835885-11-5P 835885-12-6P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(pharmaceutical compns. including carotenoid ester analogs or derivs. for inhibition and amelioration of disease)

RN 835885-11-5 CAPLUS

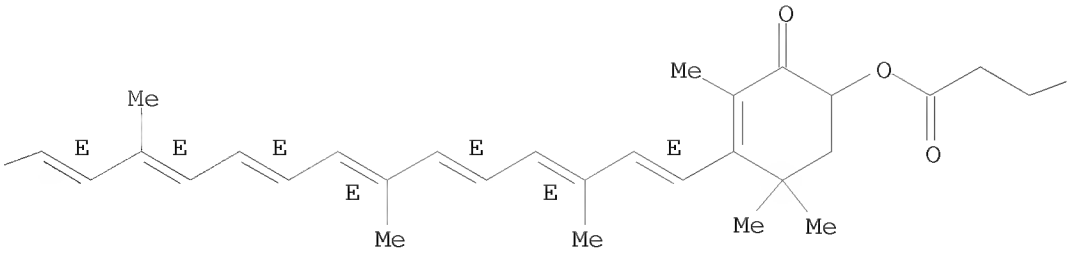
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

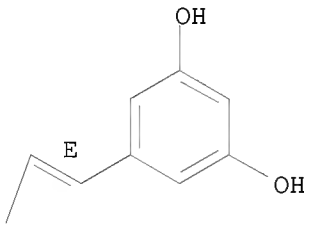


CO_2H

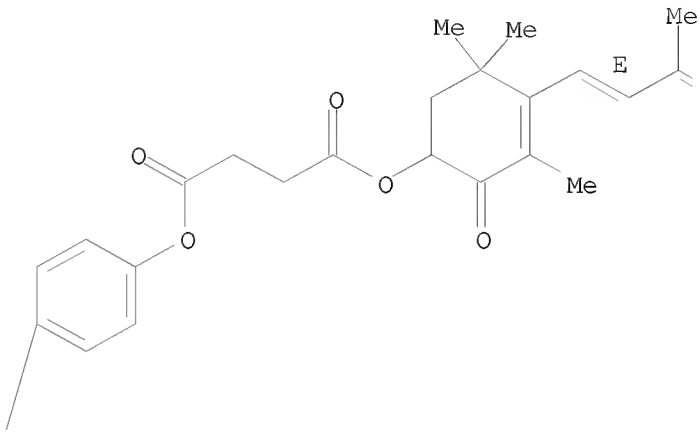
RN 835885-12-6 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

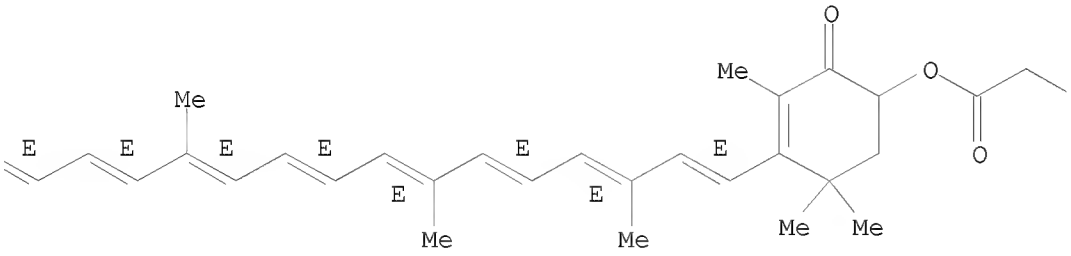
PAGE 1-C



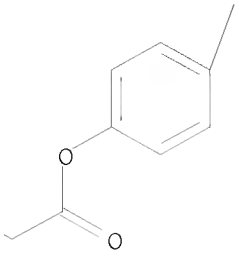
PAGE 2-A



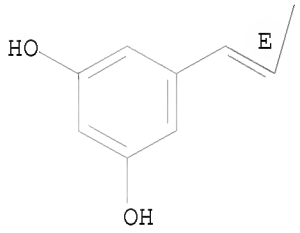
PAGE 2-B



PAGE 2-C



PAGE 3-A

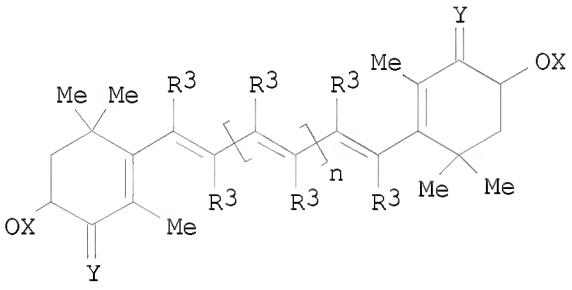


OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
REFERENCE COUNT: 424 THERE ARE 424 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 29 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:259647 CAPLUS
DOCUMENT NUMBER: 142:316980
TITLE: Pharmaceutical compositions including carotenoid ether analogs or derivatives for the inhibition and amelioration of disease
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): Cardax Pharmaceuticals, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 126 pp., Cont.-in-part of U.S. Ser. No. 629,538.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050065096	A1	20050324	US 2004-793680	20040304
US 7375133	B2	20080520		
US 20040162329	A1	20040819	US 2003-629538	20030729
US 7145025	B2	20061205		
US 20050065097	A1	20050324	US 2004-793696	20040304

US 20050075337 A1 20050407 US 2004-793702 20040304
US 20060229446 A1 20061012 US 2006-357897 20060217
PRIORITY APPLN. INFO.: US 2002-399194P P 20020729
US 2003-467973P P 20030505
US 2003-472831P P 20030522
US 2003-473741P P 20030528
US 2003-485304P P 20030703
US 2003-629538 A2 20030729
OTHER SOURCE(S): CASREACT 142:316980; MARPAT 142:316980
GI



I

AB Carotenoid analogs, I, (n = 5-12; R3 = H or Me; Y = O or H2; X = phosphate, sulfate sugar, amine, alkyl, aryl, acid, etc.) for inhibiting and/or ameliorating the occurrence of diseases associated with reactive oxygen species, reactive nitrogen species, radicals and/or non-radicals in a subject whereby a subject is administered a carotenoid analog or derivative, either alone or in combination with another carotenoid analog or derivative, or co-antioxidant formulation are prepared and evaluated. Thus, astaxanthin in dichloromethane was treated with DIPEA, and succinic anhydride to yield the corresponding disuccinic acid ester. The analog or derivative is administered such that the subject's risk of experiencing diseases associated with reactive oxygen species, reactive nitrogen species, radicals and/or non-radicals may be thereby reduced. The analog or analog combination may be administered to a subject for the inhibition and/or amelioration of any disease that involves production of reactive oxygen species, reactive nitrogen species, radicals and/or non-radicals. In some embodiments, the invention may include a pharmaceutical composition including a carotenoid analog or derivative In some embodiments, a pharmaceutical composition may include a biol. inactive carrier. The pharmaceutical composition may be adapted to be administered to a human subject.

IT 653566-06-4P 653566-07-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of carotenoid analogs as antioxidants for the inhibition and amelioration of liver disease)

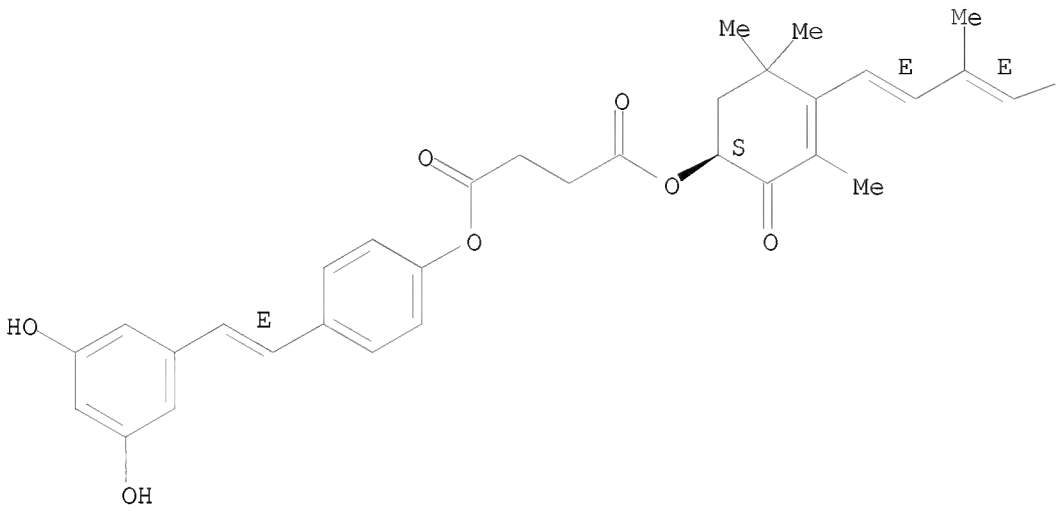
RN 653566-06-4 CAPLUS

CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA

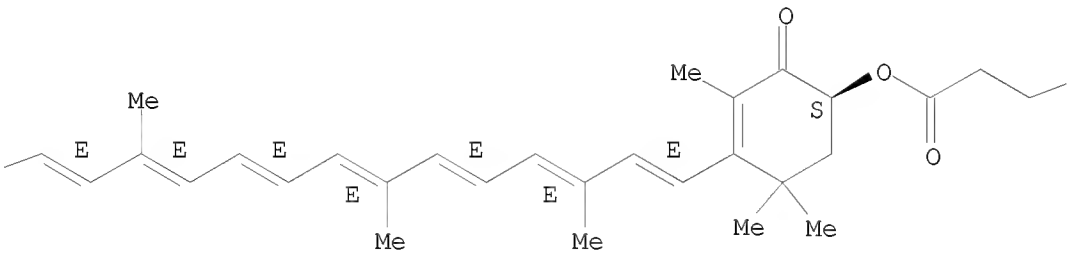
INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

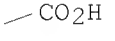
PAGE 1-A



PAGE 1-B



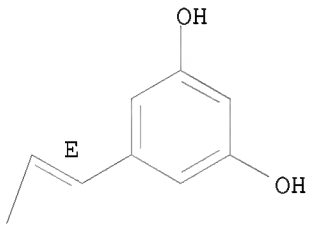
PAGE 1-C



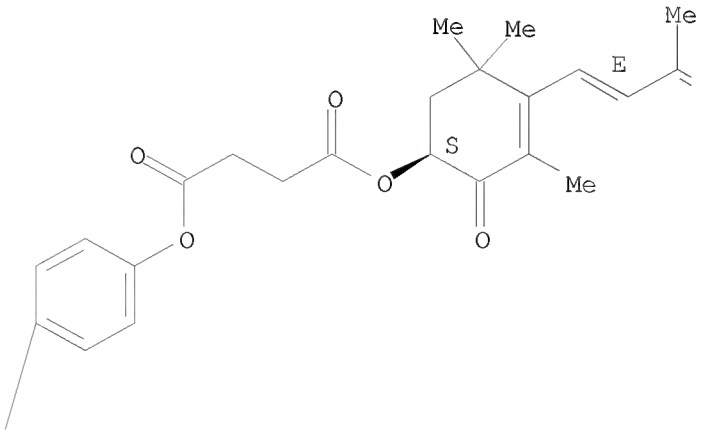
RN 653566-07-5 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

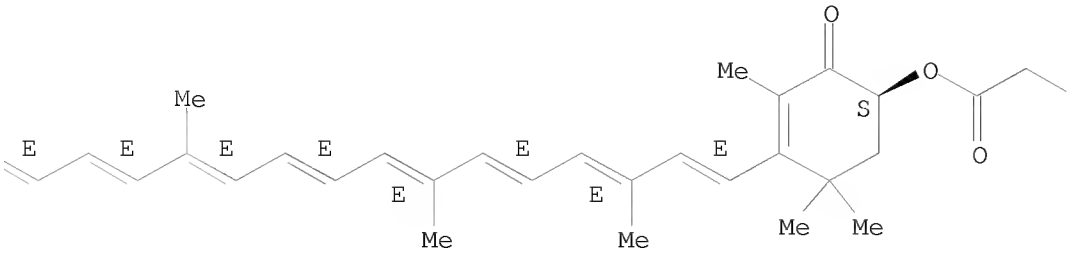
PAGE 1-C



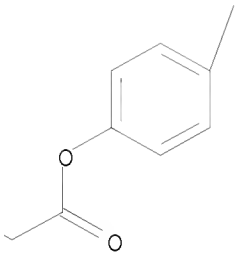
PAGE 2-A



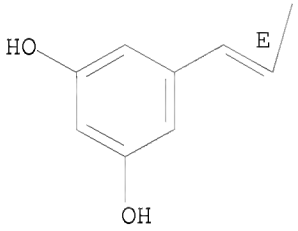
PAGE 2-B



PAGE 2-C



PAGE 3-A



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L3 ANSWER 30 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:238691 CAPLUS
DOCUMENT NUMBER: 142:291360
TITLE: Carotenoid analogs or derivatives for controlling c-reactive protein levels
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff

PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 138 pp., Cont.-in-part of U.S. Ser. No. 629,538.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050059659	A1	20050317	US 2004-793685		20040304
US 20040162329	A1	20040819	US 2003-629538		20030729
US 7145025	B2	20061205			
US 20050065097	A1	20050324	US 2004-793696		20040304
US 20050075337	A1	20050407	US 2004-793702		20040304
US 20060229446	A1	20061012	US 2006-357897		20060217
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505
			US 2003-472831P	P	20030522
			US 2003-473741P	P	20030528
			US 2003-485304P	P	20030703
			US 2003-629538	A2	20030729

OTHER SOURCE(S): MARPAT 142:291360

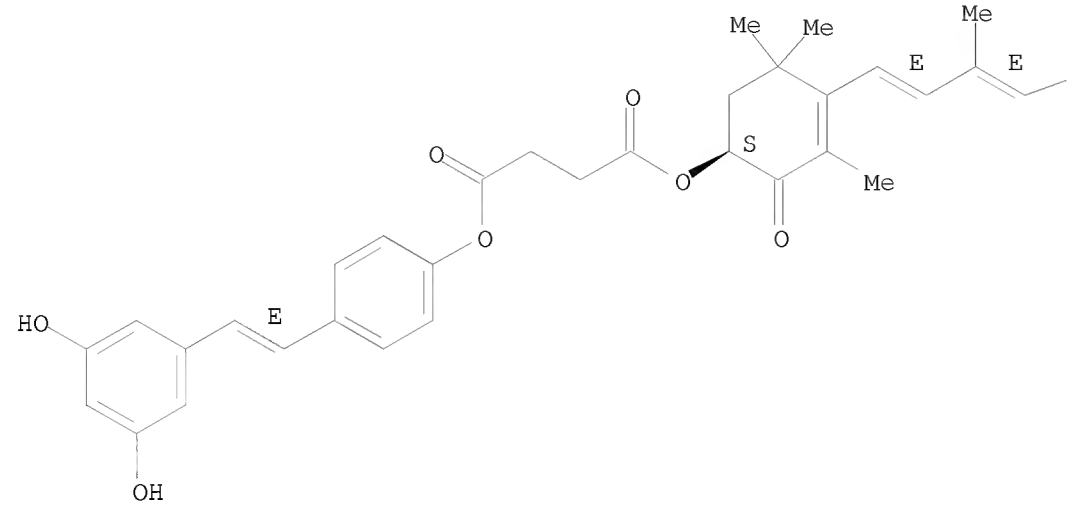
AB A method of controlling (e.g., influencing or affecting) C-reactive protein levels in a subject may include administering to the subject an effective amount of a pharmaceutically acceptable formulation. The pharmaceutically acceptable formulation may include a synthetic analog or derivative of a carotenoid. The subject may be administered a carotenoid analog or derivative, either alone or in combination with another carotenoid analog or derivative, or co-antioxidant formulation. The carotenoid analog may include a conjugated polyene with between 7 to 14 double bonds. The conjugated polyene may include an acyclic alkene including at least one substituent and/or a cyclic ring including at least one substituent. In some embodiments, a carotenoid analog or derivative may include at least one substituent.

IT 653566-06-4P 653566-07-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(carotenoid analogs or derivs. for controlling c-reactive protein expression)

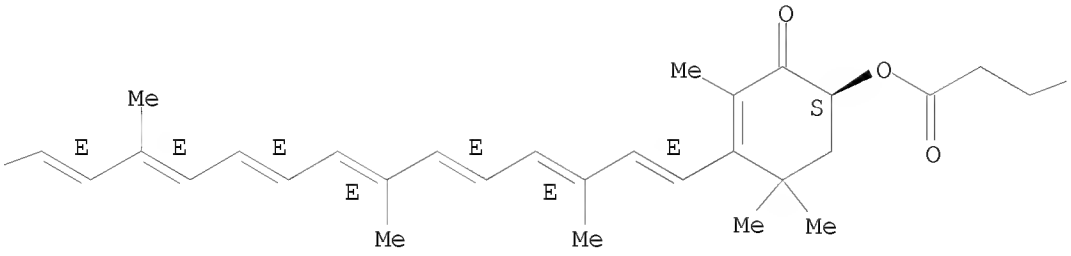
RN 653566-06-4 CAPLUS
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

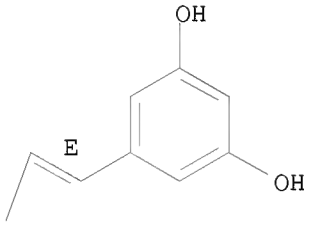


PAGE 1-C

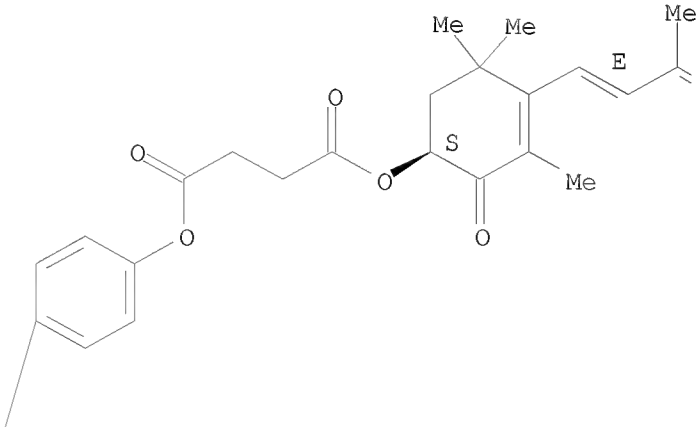
RN 653566-07-5 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

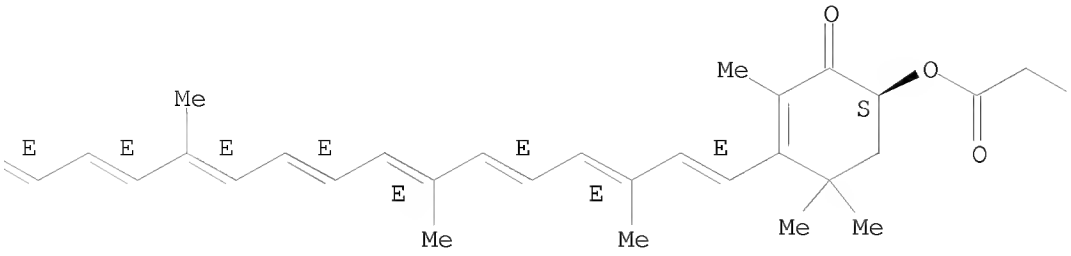
PAGE 1-C



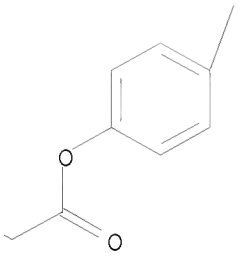
PAGE 2-A



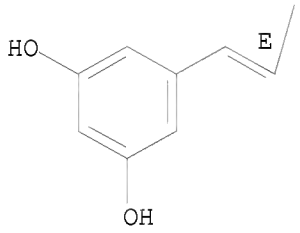
PAGE 2-B



PAGE 2-C



PAGE 3-A



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L3 ANSWER 31 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:238683 CAPLUS
DOCUMENT NUMBER: 142:291448
TITLE: Carotenoid ester analogs or derivatives for controlling c-reactive protein levels
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 134 pp., Cont.-in-part of U.S.

Ser. No. 629,538.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050059635	A1	20050317	US 2004-793691		20040304
US 20040162329	A1	20040819	US 2003-629538		20030729
US 7145025	B2	20061205			
US 20050065097	A1	20050324	US 2004-793696		20040304
US 20050075337	A1	20050407	US 2004-793702		20040304
US 20060229446	A1	20061012	US 2006-357897		20060217
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505
			US 2003-472831P	P	20030522
			US 2003-473741P	P	20030528
			US 2003-485304P	P	20030703
			US 2003-629538	A2	20030729

OTHER SOURCE(S): MARPAT 142:291448

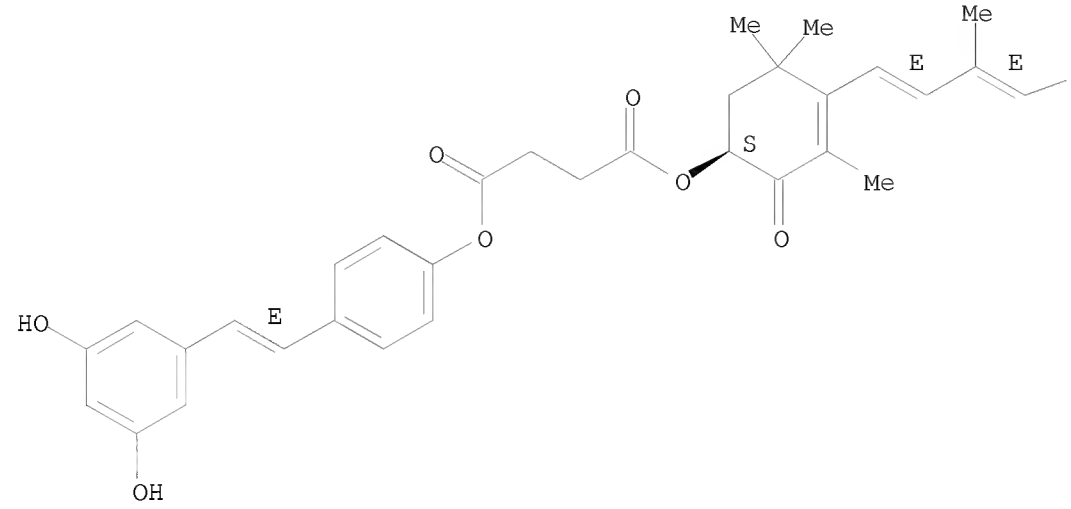
AB A method of controlling (e.g., influencing or affecting) C-reactive protein levels in a subject may include administering to the subject an effective amount of a pharmaceutically acceptable formulation. The pharmaceutically acceptable formulation may include a synthetic analog or derivative of a carotenoid. The subject may be administered a carotenoid analog or derivative, either alone or in combination with another carotenoid analog or derivative, or co-antioxidant formulation. The carotenoid analog may include a conjugated polyene with between 7 to 14 double bonds. The conjugated polyene may include a cyclic ring including at least one substituent. In some embodiments, a cyclic ring of a carotenoid analog or derivative may include at least one substituent. The substituent may be coupled to the cyclic ring with an ester functionality.

IT 653566-06-4P 653566-07-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(carotenoid ester analogs or derivs. for controlling c-reactive protein expression)

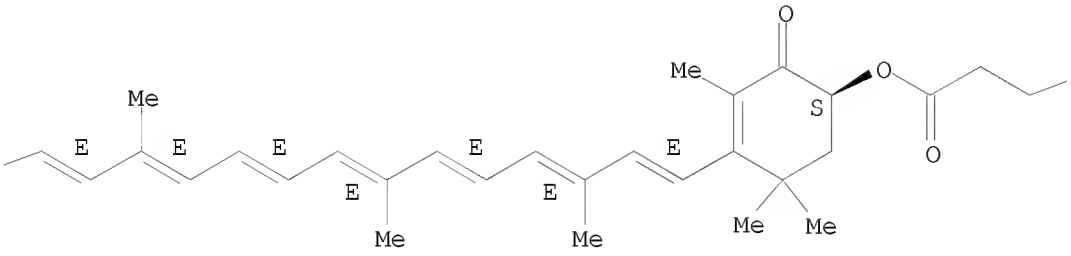
RN 653566-06-4 CAPLUS
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

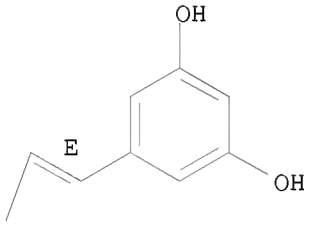


PAGE 1-C

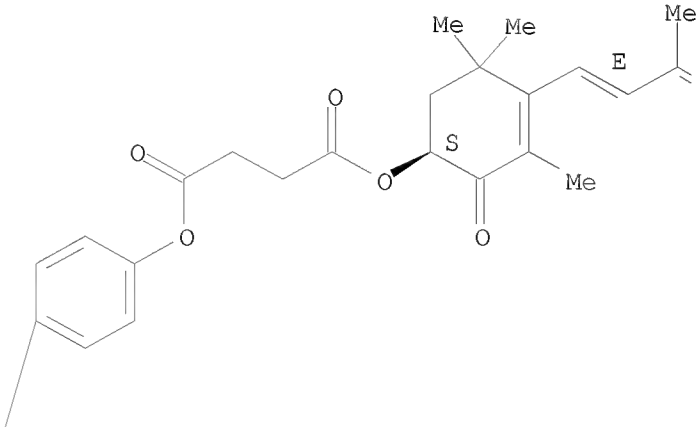
RN 653566-07-5 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

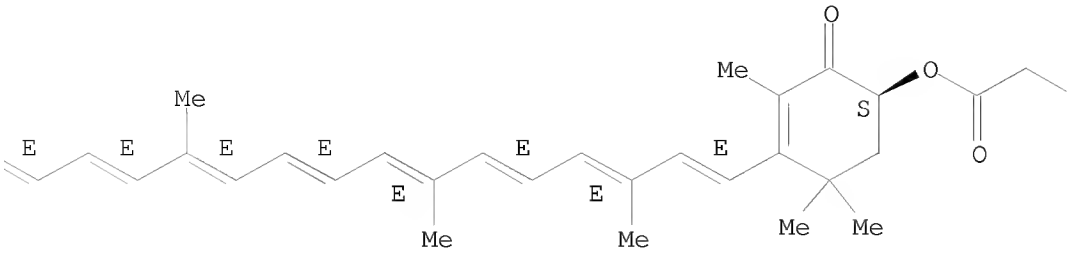
PAGE 1-C



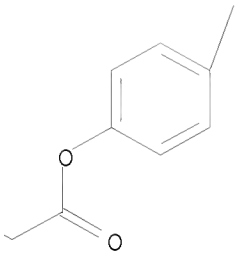
PAGE 2-A



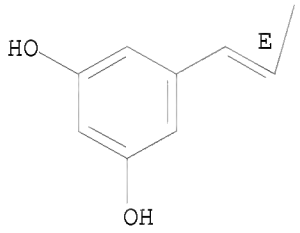
PAGE 2-B



PAGE 2-C



PAGE 3-A



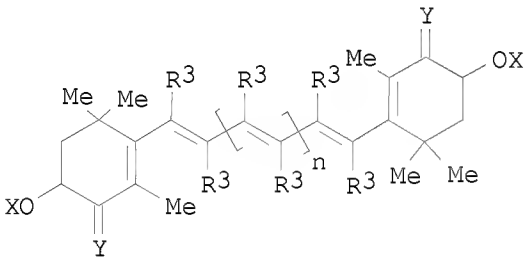
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L3 ANSWER 32 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:185383 CAPLUS
DOCUMENT NUMBER: 142:261669
TITLE: Carotenoid ether analogs or derivatives for controlling c-reactive protein levels
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 126 pp., Cont.-in-part of U.S.

Ser. No. 629,538.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050049248	A1	20050303	US 2004-793676		20040304
US 20040162329	A1	20040819	US 2003-629538		20030729
US 7145025	B2	20061205			
US 20050065097	A1	20050324	US 2004-793696		20040304
US 20050075337	A1	20050407	US 2004-793702		20040304
US 20060229446	A1	20061012	US 2006-357897		20060217
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505
			US 2003-472831P	P	20030522
			US 2003-473741P	P	20030528
			US 2003-485304P	P	20030703
			US 2003-629538	A2	20030729

OTHER SOURCE(S): CASREACT 142:261669; MARPAT 142:261669
GI



I

AB The preparation and evaluation of carotenoid derivs. I (X = phosphate, sulfate, sugar, amine, amino acid, polyethylene glycol, aryl, etc.; R3 = independently H or Me; Y = O, H2; n = 5-12) for controlling C-reactive protein levels is described. Thus, astaxanthin is treated with succinic anhydride and DIPEA in CH2Cl2 to give the corresponding disuccinic ester. The subject may be administered a carotenoid analog or derivative, either alone or in combination with another carotenoid analog or derivative, or co-antioxidant formulation.

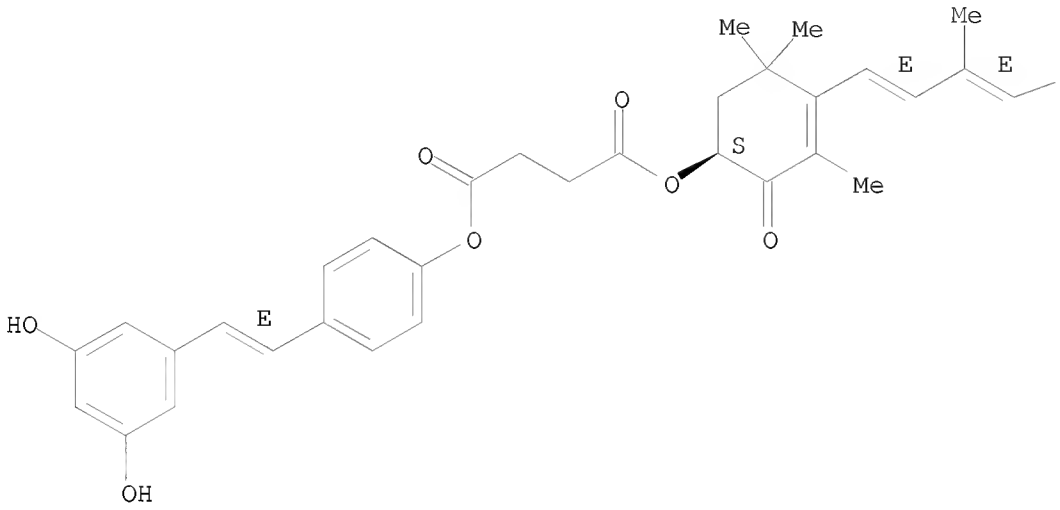
IT 653566-06-4P 653566-07-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of carotenoid analogs as antioxidants for the inhibition and amelioration of liver disease)

RN 653566-06-4 CAPLUS

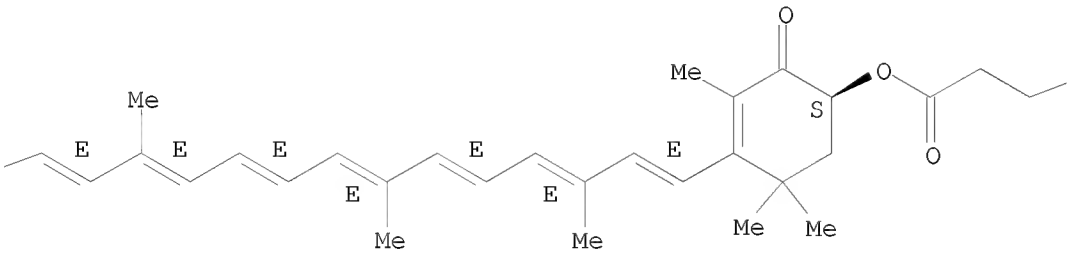
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

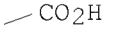
PAGE 1-A



PAGE 1-B



PAGE 1-C

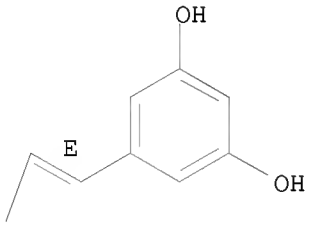


RN 653566-07-5 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

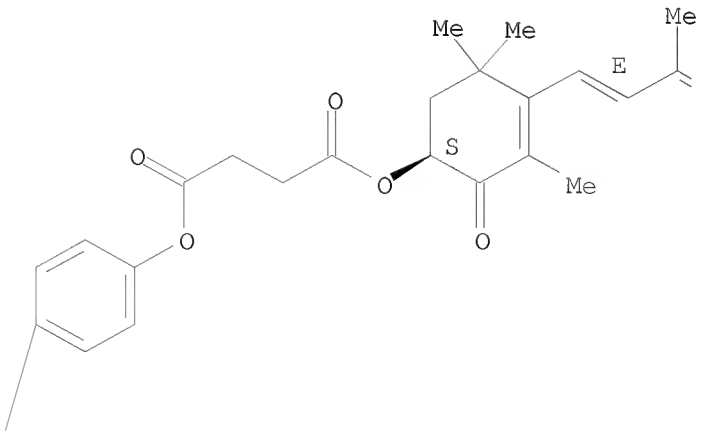
Absolute stereochemistry.

Double bond geometry as shown.

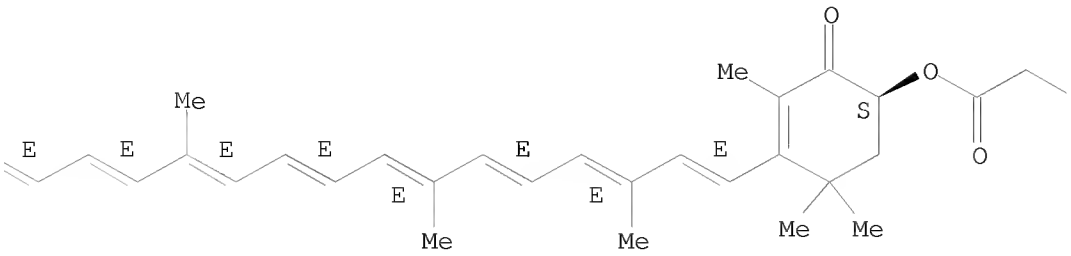
PAGE 1-C



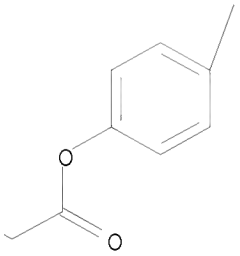
PAGE 2-A



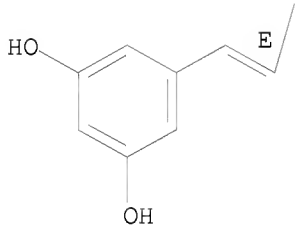
PAGE 2-B



PAGE 2-C



PAGE 3-A



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L3 ANSWER 33 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:99144 CAPLUS
DOCUMENT NUMBER: 142:198233
TITLE: Preparation of carotenoid ether analogs or derivatives for the inhibition and amelioration of liver disease
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 130 pp., Cont.-in-part of U.S. Ser. No. 629,538.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050026874	A1	20050203	US 2004-793681		20040304
US 20040162329	A1	20040819	US 2003-629538		20030729
US 7145025	B2	20061205			
US 20050065097	A1	20050324	US 2004-793696		20040304
US 20050075337	A1	20050407	US 2004-793702		20040304
US 20060229446	A1	20061012	US 2006-357897		20060217
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505
			US 2003-472831P	P	20030522
			US 2003-473741P	P	20030528
			US 2003-485304P	P	20030703
			US 2003-629538	A2	20030729

OTHER SOURCE(S): CASREACT 142:198233; MARPAT 142:198233
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A method of treating liver disease in a subject. The method may include administering to the subject an effective amount of a pharmaceutically acceptable formulation. The pharmaceutically acceptable formulation may include a synthetic analog or derivative I [Z = {CR3:CR3-(E)}z; z = 5 - 12; R3 = H, Me; Y = O, H2; X = P(:O)(OR1)2, S(:O)(OR1)2, X', alkyl-N+(R2)3, aryl-N+(R2)3, alkyl-CO2-, aryl-CO2-, N-protonated amino acid, phosphorylated N-protonated amino acid, polyethylene glycol, dextran, vitamin C, phosphorylated vitamin C, aryl; R1 = alkyl-N+(R2)3, aryl-N+(R2)3, alkyl-CO2-, aryl-CO2-, N-protonated amino acid, phosphorylated N-protonated amino acid, polyethylene glycol, dextran, H, alkyl, aryl, alkali salt; R2 = H, alkyl, aryl; (wherein X enhances the solubility of I allowing at least partial water solubility)] of a carotenoid. The subject may be administered a carotenoid analog or derivative, either alone or in combination with another carotenoid analog or derivative, or co-antioxidant formulation. The carotenoid analog may include a conjugated polyene with between 7 to 14 double bonds. The conjugated polyene may include a cyclic ring including at least one substituent. In some embodiments, a cyclic ring of a carotenoid analog or derivative may include at least one substituent. The substituent may be coupled to the cyclic ring with an ether functionality. Thus, astaxanthin disuccinate ascorbate diester was prepared from astaxanthin via acylation with succinic anhydride in CH2Cl2 containing EtNH(CHMe2)2 and catalytic DMAP followed by reaction with 2-O-(tert-butyldimethylsilyl)ascorbic acid in CH2Cl2 containing DMAP and EDCI·HCl. Astaxanthin disuccinate disodium salt was tested for its water solubility, ability to induce Connexin 43 protein expression, induce intercellular gap junction communication, inhibition of carcinogen-induced

neoplastic transformation, reduce superoxides in neutrophils, and its plasma pharmacokinetics.

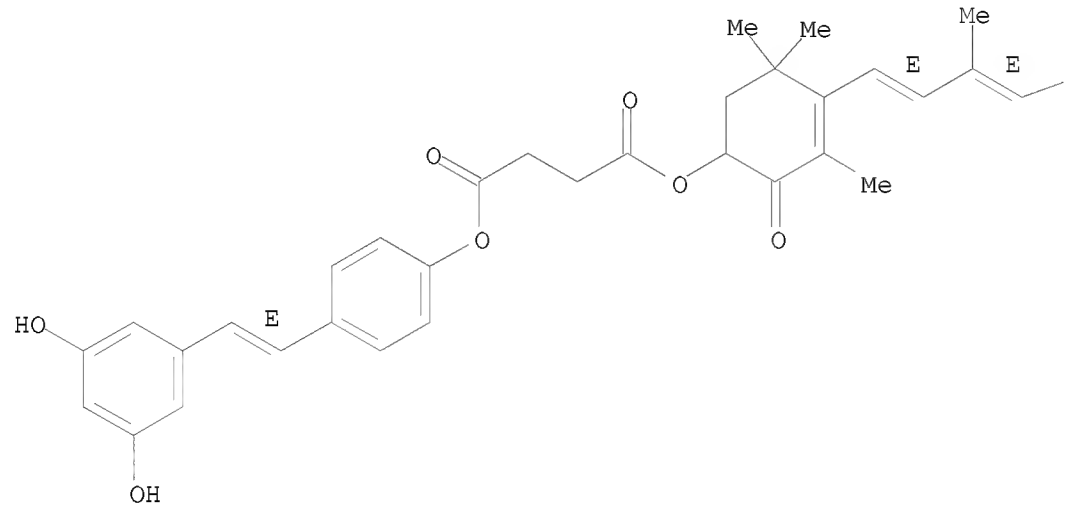
IT 835885-11-5P 835885-12-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of carotenoid analogs or derivs. for the inhibition and amelioration of liver disease)

RN 835885-11-5 CAPLUS

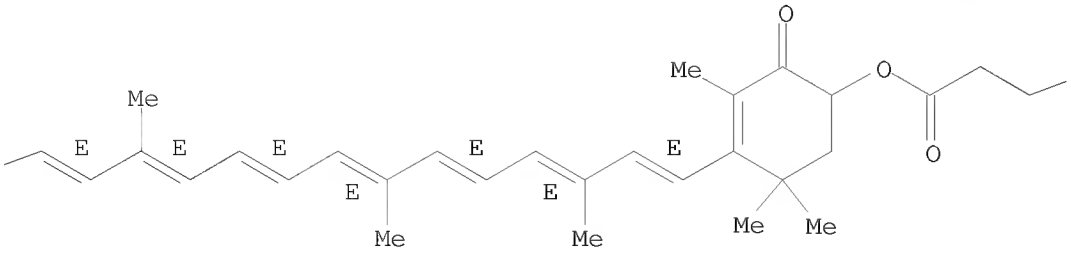
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



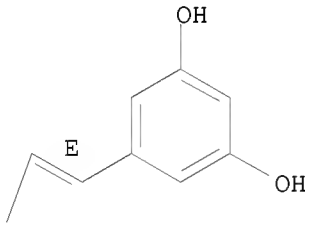
PAGE 1-C

CO_2H

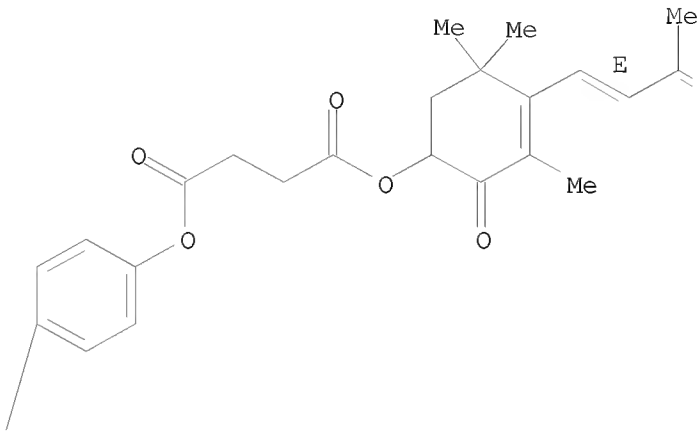
RN 835885-12-6 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]- (CA INDEX NAME)

Double bond geometry as shown.

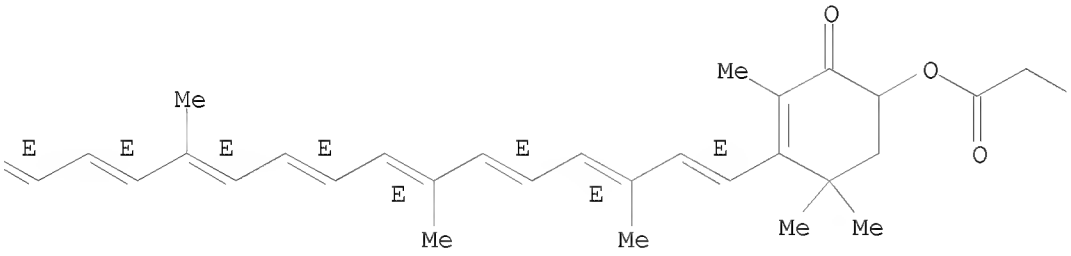
PAGE 1-C



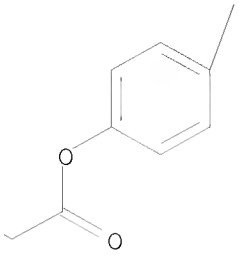
PAGE 2-A



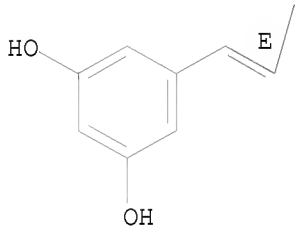
PAGE 2-B



PAGE 2-C

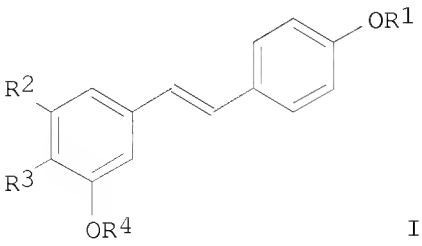


PAGE 3-A

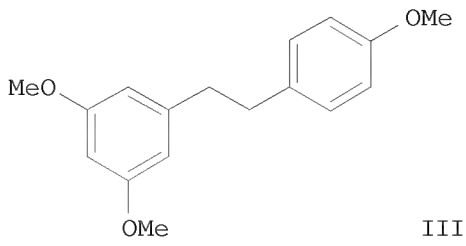


OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L3 ANSWER 34 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:69618 CAPLUS
DOCUMENT NUMBER: 142:336166
TITLE: Chemo-enzymatic synthesis and cell-growth inhibition activity of resveratrol analogues
AUTHOR(S): Cardile, Venera; Lombardo, Laura; Spatafora, Carmela; Tringali, Corrado
CORPORATE SOURCE: Dipartimento di Scienze Fisiologiche, Universita di Catania, Catania, 95125, Italy
SOURCE: Bioorganic Chemistry (2005), 33(1), 22-33
CODEN: BOCMBM; ISSN: 0045-2068
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:336166
GI



I



III

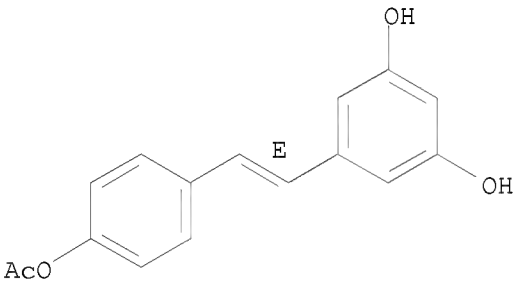
AB The stilbenoid resveratrol was subjected to regioselective acetylation catalyzed by Candida antarctica lipase (CAL) to obtain 4'-acetylresveratrol. CAL biocatalyzed regioselective alcoholysis of 3,5,4'-triacetylresveratrol, 3,5,4'-tributanoylresveratrol, and 3, 4, 5'-trioctanoylresveratrol afforded various derivs. Further resveratrol analogs were obtained through methylation and hydrogenation reactions, whereas the 3,4,4'-trimethoxystilbene was obtained by complete synthesis. Resveratrol and its lipophylic analogs were subjected to cell-growth inhibition bioassays towards DU-145 human prostate cancer cells. Compds. showed cell-growth inhibition activity comparable to or higher than resveratrol (GI50 = 24.09 μM), displaying low or very low toxicity against non-tumorigenic human fibroblast cells. Comparison of the trimethoxy stilbenes I [R1, R4 = Me, R2 = OMe, R3 = H (II)] (GI50 = 2.92 μM) and I [R1, R4 = Me, R2 = H, R3 = OMe] (GI50 = 25.39 μM) indicates that the position of the substituents is important for the activity. The marked activity of Me ethers II, I [R1 = Me, R2 = OMe, R3, R4 = H], III and in comparison with that of the corresponding esters suggests that the different chemical reactivity, rather than steric factors, strongly influences the activity.

IT 411233-11-9P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(chemo-enzymic preparation and cell-growth inhibition activity of resveratrol analogs against androgen-non-responsive DU-145 human prostate cancer cells)

RN 411233-11-9 CAPLUS

CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 22 THERE ARE 22 CAPLUS RECORDS THAT CITE THIS RECORD (22 CITINGS)

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 35 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:34616 CAPLUS

DOCUMENT NUMBER: 142:114303

TITLE: Carotenoid ester analogs or derivatives for controlling connexin 43 expression

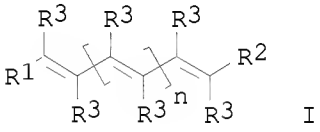
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski,

	Geoff
PATENT ASSIGNEE(S):	USA
SOURCE:	U.S. Pat. Appl. Publ., 135 pp., Cont.-in-part of U.S. Ser. No. 629,538.
	CODEN: USXXCO
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	16
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050009930	A1	20050113	US 2004-793686		20040304
US 20040162329	A1	20040819	US 2003-629538		20030729
US 7145025	B2	20061205			
US 20050065097	A1	20050324	US 2004-793696		20040304
US 20050075337	A1	20050407	US 2004-793702		20040304
US 20060229446	A1	20061012	US 2006-357897		20060217
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505
			US 2003-472831P	P	20030522
			US 2003-473741P	P	20030528
			US 2003-485304P	P	20030703
			US 2003-629538	A2	20030729

OTHER SOURCE(S): MARPAT 142:114303

GI



I

AB The preparation and evaluation of carotenoid derivs. I (R1, R2 = independently an acyclic alkene comprising at least one substituent, or a cyclic ring comprising at least one substituent; R3 = independently H or Me; n = 5-12) as inhibitors of connexin 43 expression for the treatment of cardiac arrhythmia and cancers. Thus, astaxanthin in CH2Cl2 was treated with DIPEA and succinic andhydride to yield the corresponding disuccinic ester.

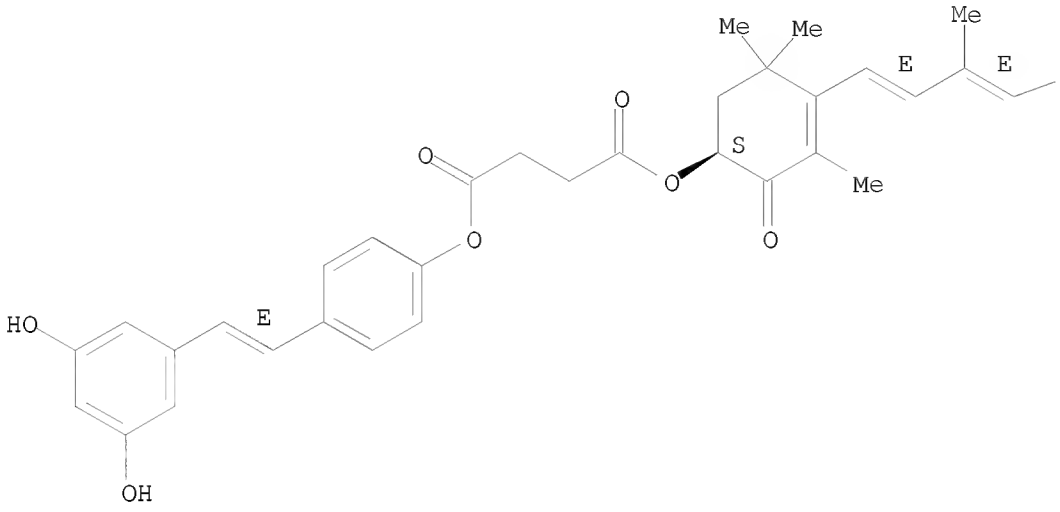
IT 653566-06-4P 653566-07-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of carotenoid analogs as antioxidants for the inhibition and amelioration of liver disease)

RN 653566-06-4 CAPLUS

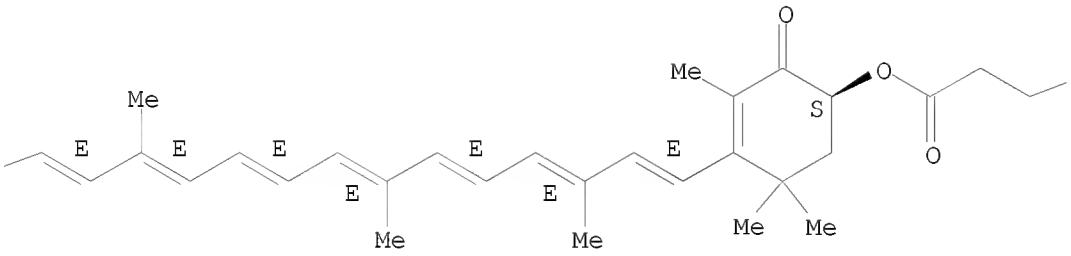
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

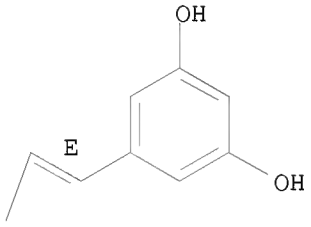


PAGE 1-C

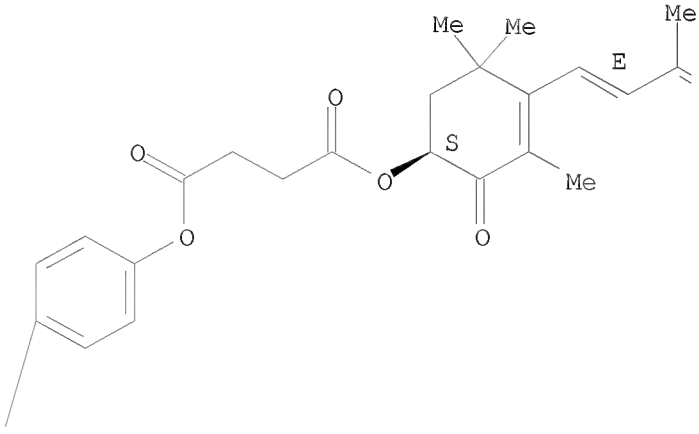
RN 653566-07-5 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

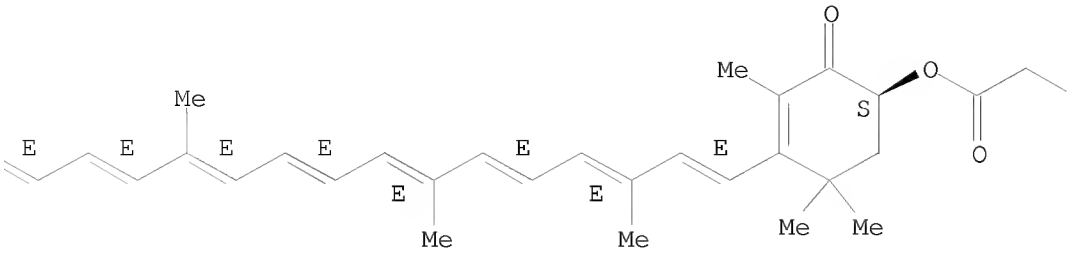
PAGE 1-C



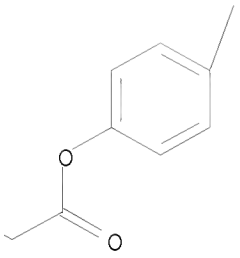
PAGE 2-A



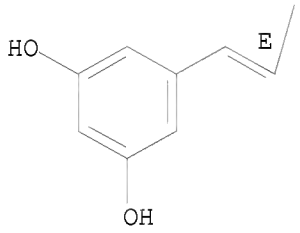
PAGE 2-B



PAGE 2-C



PAGE 3-A



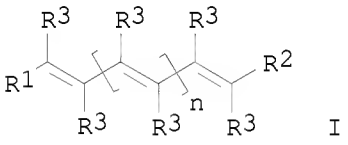
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L3 ANSWER 36 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:34594 CAPLUS
DOCUMENT NUMBER: 142:114302
TITLE: Carotenoid ester analogs or derivatives for controlling connexin 43 expression
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 133 pp., Cont.-in-part of U.S.

Ser. No. 629,538.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050009788	A1	20050113	US 2004-793697		20040304
US 20040162329	A1	20040819	US 2003-629538		20030729
US 7145025	B2	20061205			
US 20050065097	A1	20050324	US 2004-793696		20040304
US 20050075337	A1	20050407	US 2004-793702		20040304
US 20060229446	A1	20061012	US 2006-357897		20060217
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505
			US 2003-472831P	P	20030522
			US 2003-473741P	P	20030528
			US 2003-485304P	P	20030703
			US 2003-629538	A2	20030729

OTHER SOURCE(S): MARPAT 142:114302
GI



I

AB The preparation and evaluation of carotenoid derivs. I (R1, R2 = independently an acyclic alkene comprising at least one substituent, or a cyclic ring comprising at least one substituent; R3 = independently H or Me; n = 5-12) as inhibitors of connexin 43 expression for the treatment of cardiac arrhythmia and cancers. Thus, astaxanthin in CH2Cl2 was treated with DIPEA and succinic andhydride to yield the corresponding disuccinic ester.

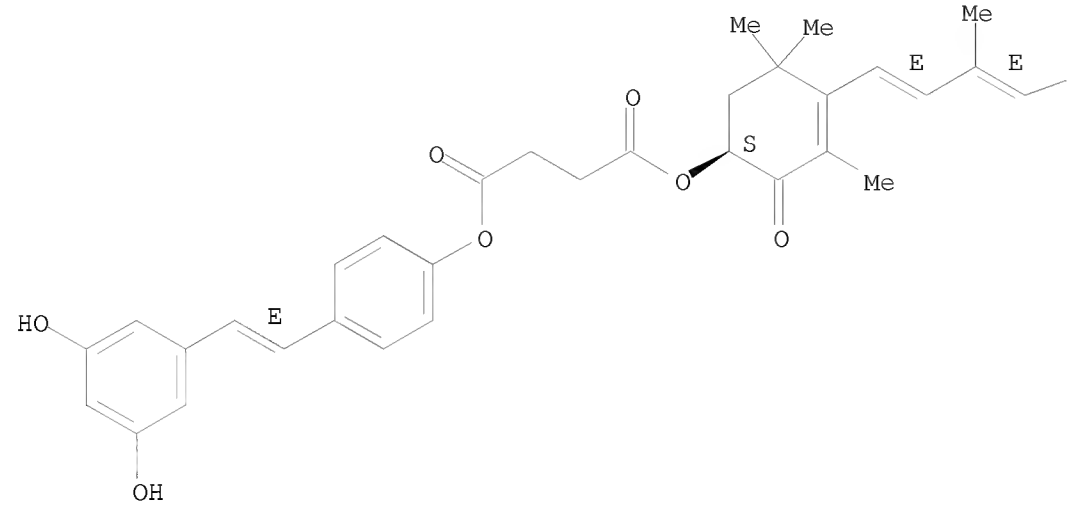
IT 653566-06-4P 653566-07-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of carotenoid analogs as antioxidants for the inhibition and amelioration of liver disease)

RN 653566-06-4 CAPLUS

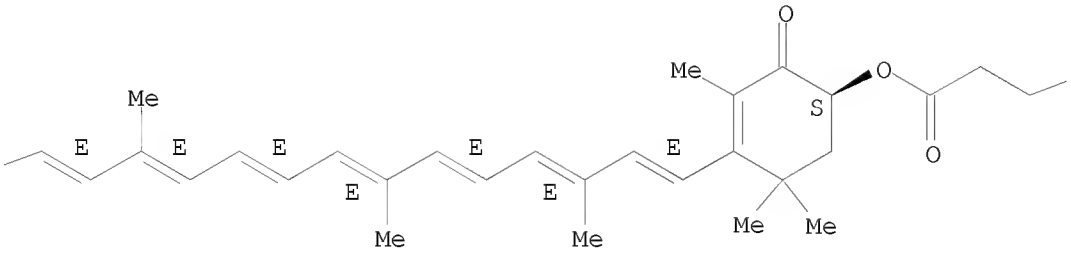
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

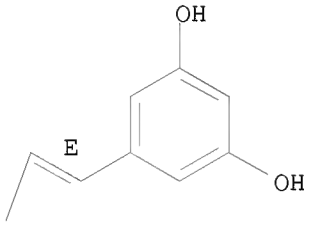


PAGE 1-C

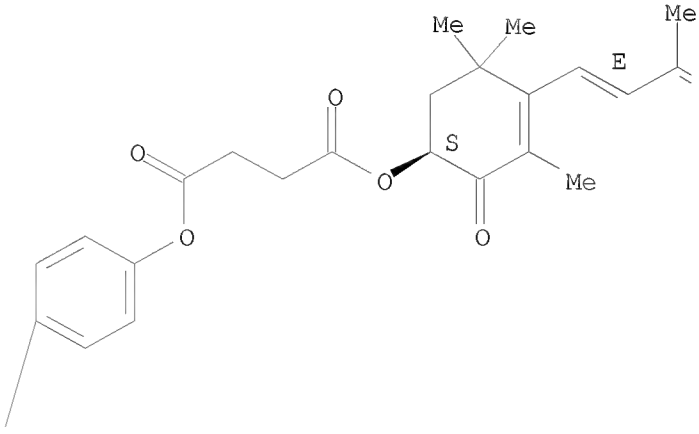
RN 653566-07-5 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

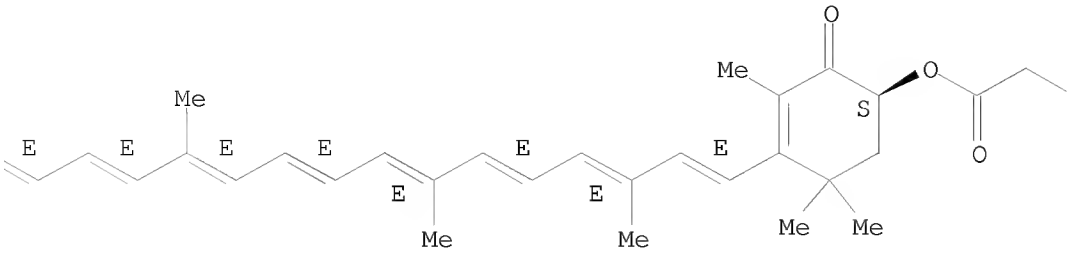
PAGE 1-C



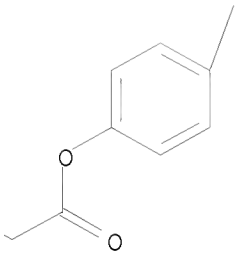
PAGE 2-A



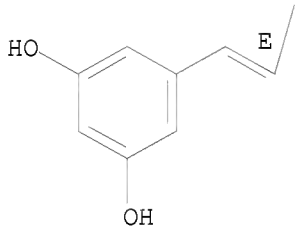
PAGE 2-B



PAGE 2-C



PAGE 3-A



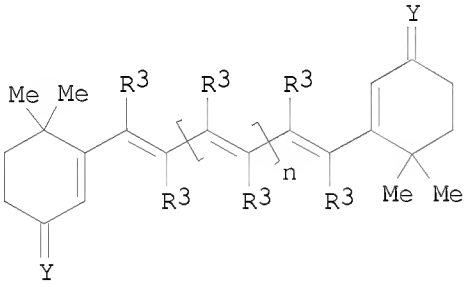
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L3 ANSWER 37 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:34587 CAPLUS
DOCUMENT NUMBER: 142:114301
TITLE: Carotenoid ether analogs or derivatives for the inhibition and amelioration of diseases associated with reactive radical species
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): Cardax Pharmaceuticals, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 125 pp., Cont.-in-part of U.S. Ser. No. 629,538.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050009758	A1	20050113	US 2004-793671		20040304
US 7345091	B2	20080318			
US 20040162329	A1	20040819	US 2003-629538		20030729
US 7145025	B2	20061205			
US 20050065097	A1	20050324	US 2004-793696		20040304
US 20050075337	A1	20050407	US 2004-793702		20040304
US 20060229446	A1	20061012	US 2006-357897		20060217
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505
			US 2003-472831P	P	20030522
			US 2003-473741P	P	20030528
			US 2003-485304P	P	20030703
			US 2003-629538	A2	20030729

OTHER SOURCE(S): MARPAT 142:114301
GI



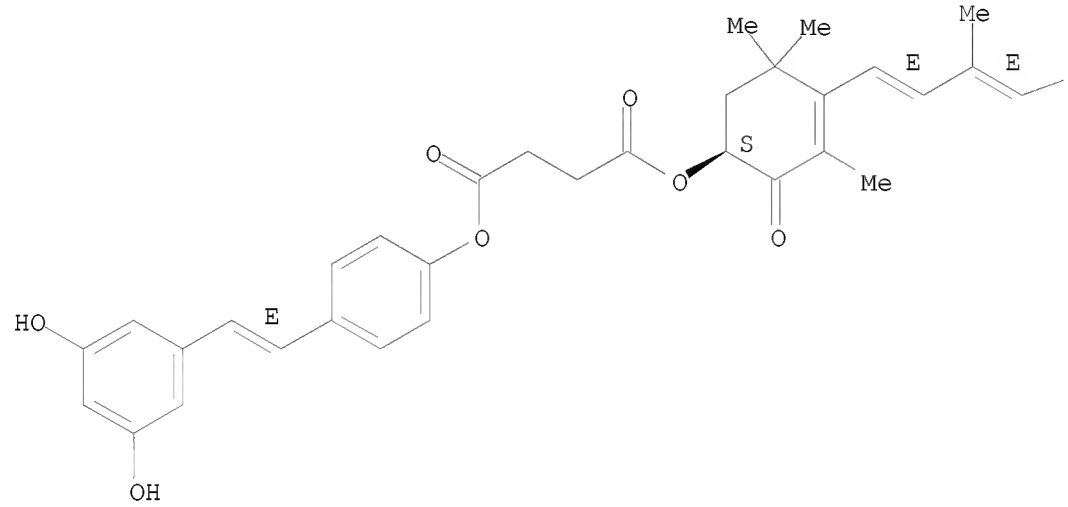
I

AB A method for inhibiting and/or ameliorating the occurrence of diseases associated with reactive oxygen species, reactive nitrogen species, radicals and/or non-radicals in a subject whereby a subject is administered a carotenoid analog or derivative of structure I (n = 5-12; R3 = H or Me; Y = O or H2, X = phosphate, sulfate, sugar, amine alkyl, acid, etc.) either alone or in combination with another carotenoid analog or derivative, or co-antioxidant formulation. Thus, astaxanthin is treated with succinic anhydride and DIPEA to yield the corresponding disuccinic acid ester. The analog or derivative is administered such that the subject's risk of experiencing diseases associated with reactive oxygen species, reactive nitrogen species, radicals and/or non-radicals may be thereby reduced. The analog or analog combination may be administered to a subject for the inhibition and/or amelioration of any disease that involves production of reactive oxygen species, reactive nitrogen species, radicals and/or non-radicals.

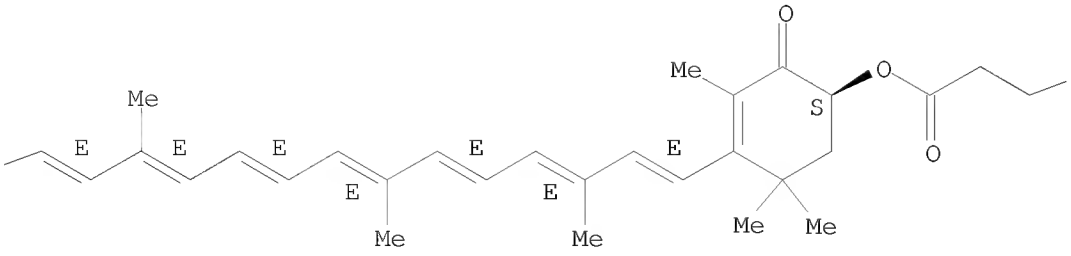
IT 653566-06-4P 653566-07-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of carotenoid analogs as antioxidants for the inhibition and amelioration of liver disease)
RN 653566-06-4 CAPLUS
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

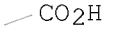
PAGE 1-A



PAGE 1-B



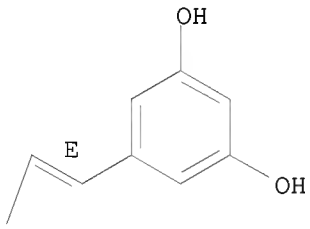
PAGE 1-C



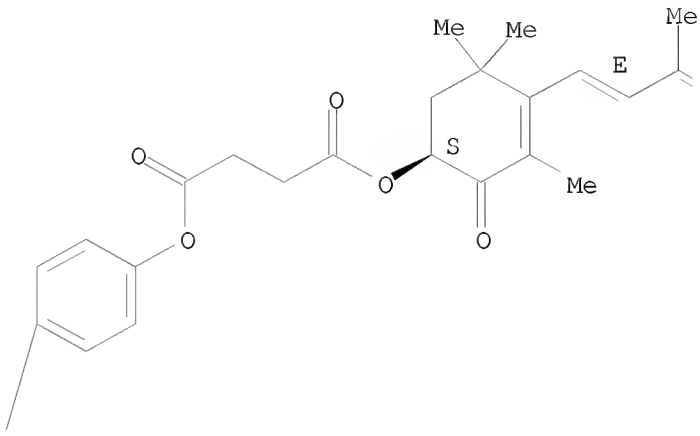
RN 653566-07-5 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

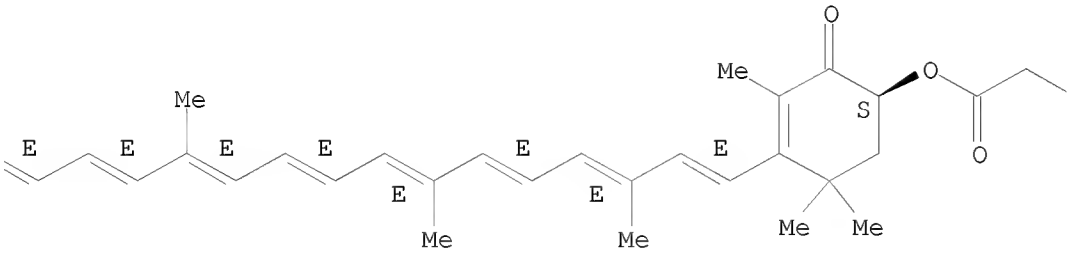
PAGE 1-C



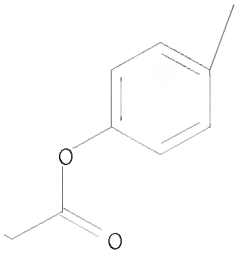
PAGE 2-A



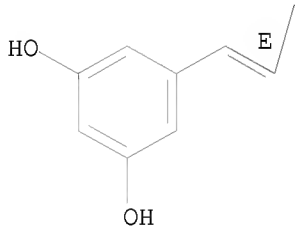
PAGE 2-B



PAGE 2-C



PAGE 3-A



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
REFERENCE COUNT: 422 THERE ARE 422 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 38 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:29238 CAPLUS
DOCUMENT NUMBER: 142:127624
TITLE: Compositions for manipulating the lifespan and stress response of cells and organisms
INVENTOR(S): Sinclair, David A.; Howitz, Konrad T.; Zipkin, Robert E.
PATENT ASSIGNEE(S): President and Fellows of Harvard College, USA; Biomol International L.P.
SOURCE: PCT Int. Appl., 224 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005002672	A2	20050113	WO 2004-US21465	20040701
WO 2005002672	A3	20051110		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,

TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2004253579	A1	20050113	AU 2004-253579	20040701
CA 2529510	A1	20050113	CA 2004-2529510	20040701
US 20060084135	A1	20060420	US 2004-884062	20040701
EP 1648437	A2	20060426	EP 2004-777536	20040701
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
JP 2007530417	T	20071101	JP 2006-518817	20040701
JP 2007326872	A	20071220	JP 2007-203287	20070803

PRIORITY APPLN. INFO.:

US 2003-483949P	P	20030701
US 2003-532158P	P	20031223
JP 2006-518817	A3	20040701
WO 2004-US21465	W	20040701

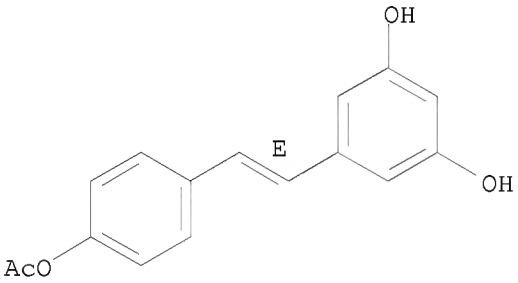
AB Provided herein are methods and compns. for modulating the activity of sirtuin deacetylase protein family members; p53 activity; apoptosis; lifespan and sensitivity to stress of cells and organisms. Exemplary methods comprise contacting a cell with an activating compound, such as a flavone, stilbene, flavanone, isoflavone, catechin, chalcone, tannin or anthocyanidin; or an inhibitory compound, such as a sphingolipid, e.g., sphingosine.

IT 411233-11-9, BML 221
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sirtuin deacetylase-modulating compns. for manipulating the lifespan and stress response of cells and organisms)

RN 411233-11-9 CAPLUS

CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 39 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:17025 CAPLUS

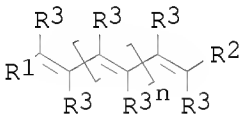
DOCUMENT NUMBER: 142:94006

TITLE: Carotenoid analogs or derivatives for the inhibition and amelioration of liver disease

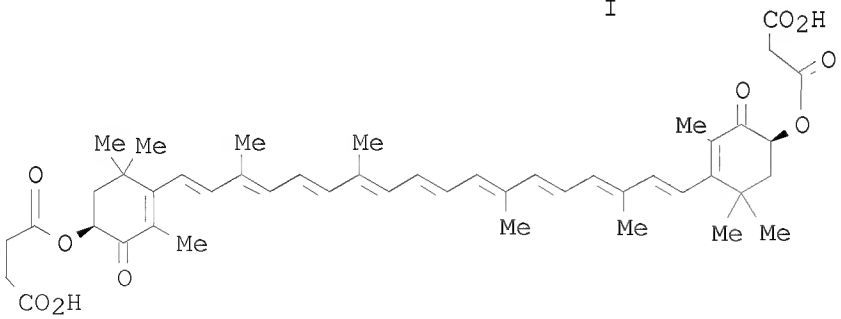
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 140 pp., Cont.-in-part of U.S. Ser. No. 629,538.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050004235	A1	20050106	US 2004-793675		20040304
US 20040162329	A1	20040819	US 2003-629538		20030729
US 7145025	B2	20061205			
US 20050065097	A1	20050324	US 2004-793696		20040304
US 20050075337	A1	20050407	US 2004-793702		20040304
US 20060229446	A1	20061012	US 2006-357897		20060217
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505
			US 2003-472831P	P	20030522
			US 2003-473741P	P	20030528
			US 2003-485304P	P	20030703
			US 2003-629538	A2	20030729

OTHER SOURCE(S): MARPAT 142:94006
GI



I



II

AB The preparation and evaluation of carotenoid derivs. I (R1, R2 = independently an acyclic alkene comprising at least one substituent, or a cyclic ring comprising at least one substituent; R3 = independently H or Me; n = 5-12) as antioxidants for the treatment of liver disease is described. Thus, astaxanthin in CH2Cl2 was treated with DIPEA and succinic andhydride to yield II.
IT 653566-06-4P 653566-07-5P

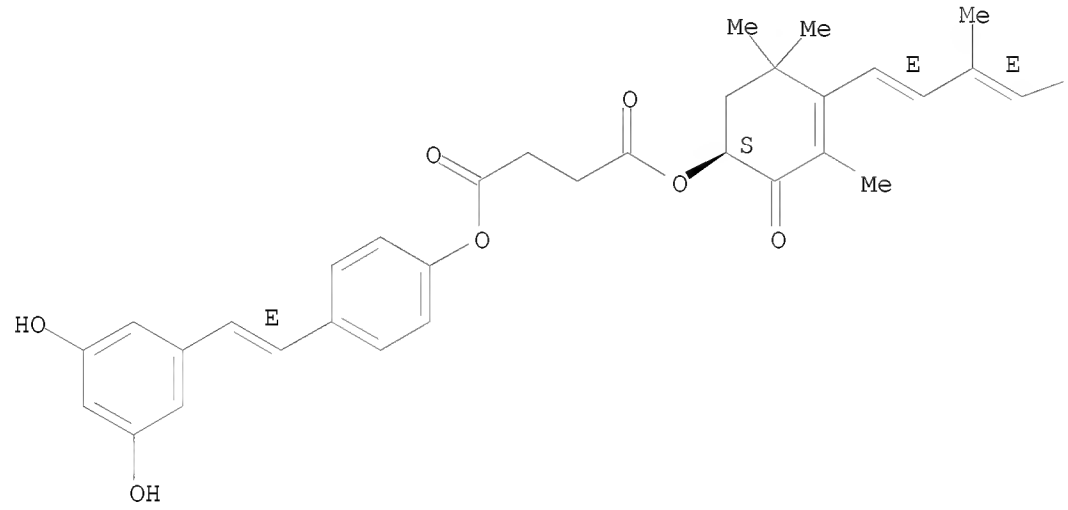
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of carotenoid analogs as antioxidants for the inhibition and amelioration of liver disease)

RN 653566-06-4 CAPLUS

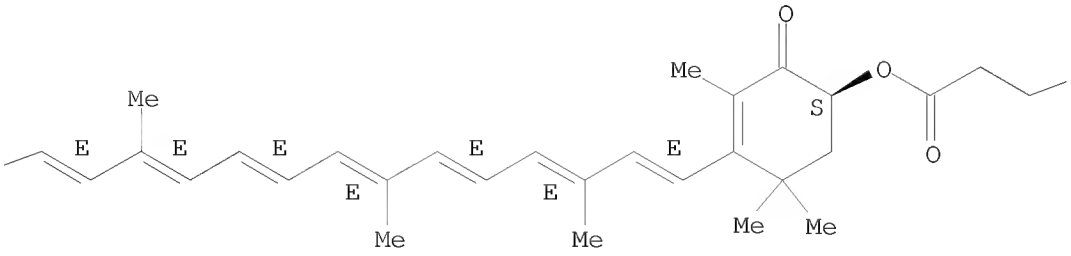
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



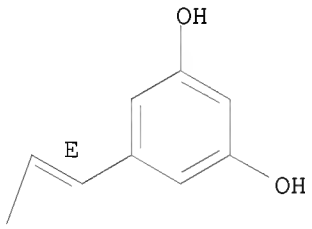
PAGE 1-C

CO_2H

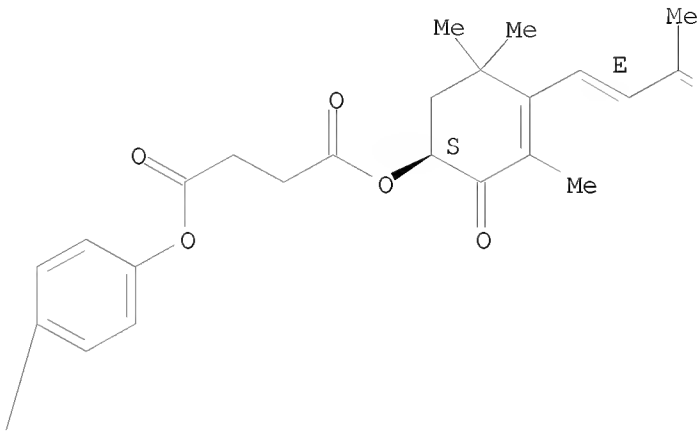
RN 653566-07-5 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

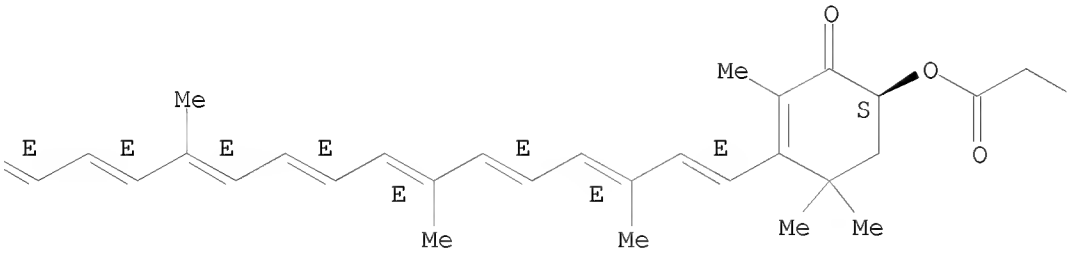
PAGE 1-C



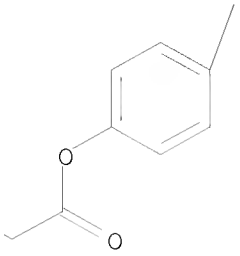
PAGE 2-A



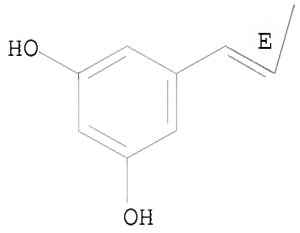
PAGE 2-B



PAGE 2-C



PAGE 3-A



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

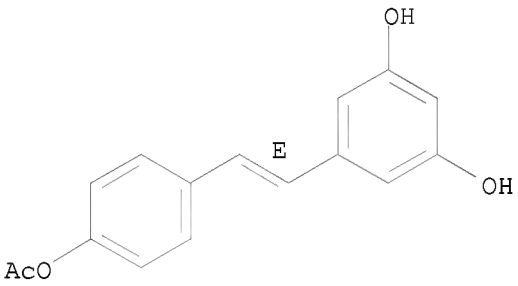
L3 ANSWER 40 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:1059858 CAPLUS
DOCUMENT NUMBER: 142:176350
TITLE: Hydrogen atom abstraction from resveratrol and two lipophilic derivatives by tert-butoxyl radicals. A laser flash photolysis study.
AUTHOR(S): Petralia, Salvatore; Spatafora, Carmela; Tringali, Corrado; Foti, Mario C.; Sortino, Salvatore
CORPORATE SOURCE: Dipartimento di Scienze Chimiche, Universita degli Studi di Catania, Catania, I-95125, Italy
SOURCE: New Journal of Chemistry (2004), 28(12), 1484-1487
CODEN: NJCHE5; ISSN: 1144-0546
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The reactions of tert-butoxyl radicals with resveratrol (1) and two acetylated derivs. (2 and 3) have been investigated by laser flash photolysis techniques in 1:2 (volume/volume) benzene-di-tert-Bu peroxide at room temperature The transient absorption spectra of the phenoxyl radicals generated upon H atom abstraction by tert-butoxyl radicals from the phenols have been detected and assigned. The absolute rate consts. for these reactions have been evaluated to be 45 + 107, 25 + 107 and 4 + 107 M-1 s-1 for 1, 2 and 3, resp. The order of reactivity 1 ≥ 2 » 3 has been rationalized in terms of the position and effect of the acetyl groups on the aromatic rings. Of the three OH groups present in resveratrol, the one in position 4' appears to be the most reactive due to the large stability of the corresponding phenoxyl radical by conjugation with the rings. However, in our system, the

H-atom-donating ability of resveratrol turns out to be inferior to that of α-tocopherol by ca. one order of magnitude.

IT 411233-11-9, 4'-O-Acetylresveratrol
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(laser flash photolysis study on hydrogen atom abstraction from resveratrol and two lipophilic derivs. by tert-butoxyl radicals)

RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 41 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:101126 CAPLUS
DOCUMENT NUMBER: 140:164047
TITLE: Structural carotenoid analogs for the inhibition and amelioration of disease
INVENTOR(S): Lockwood, Samuel Fournier; O'Malley, Sean; Watumull, David G.; Hix, Laura M.; Jackson, Henry; Nadolski, Geoff
PATENT ASSIGNEE(S): Hawaii Biotech, Inc., USA
SOURCE: PCT Int. Appl., 278 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004011423	A2	20040205	WO 2003-US23706	20030729
WO 2004011423	A3	20040506		

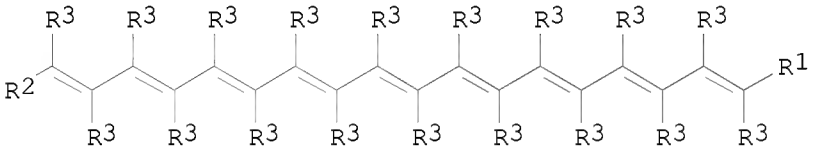
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2495167	A1	20040205	CA 2003-2495167		20030729
AU 2003256982	A1	20040216	AU 2003-256982		20030729
EP 1532108	A2	20050525	EP 2003-772051		20030729
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
BR 2003013155	A	20050712	BR 2003-13155		20030729
CN 1708480	A	20051214	CN 2003-823260		20030729
JP 2006517197	T	20060720	JP 2005-505633		20030729
IN 2005DN00403	A	20090320	IN 2005-DN403		20050202
NO 2005000619	A	20050427	NO 2005-619		20050203
PRIORITY APPLN. INFO.:			US 2002-399194P	P	20020729
			US 2003-467973P	P	20030505
			US 2003-472831P	P	20030522
			US 2003-473741P	P	20030528
			US 2003-485304P	P	20030703
			WO 2003-US23706	W	20030729

OTHER SOURCE(S): CASREACT 140:164047; MARPAT 140:164047

GI



I

AB A method for inhibiting and/or ameliorating the occurrence of diseases associated with reactive oxygen species, reactive nitrogen species, radicals and/or non-radicals in a subject whereby a subject is administered a carotenoid structural analog I [R1, R2 = substituted acyclic alkene, ZW; R3 = H, Me; Z = unsatd. C4-10-cycloalkyl; W = XR, amino acid, ester, carbamate, amine, amide, carbonate, alc., phosphate, sulfonate, amine, sugar, glycoside, succinate, glycinate, carboxylate salt; X = O, S, N], either alone or in combination with another carotenoid analog, or co-antioxidant formulation. The analog or analog combination is administered such that the subject's risk of experiencing diseases associated with reactive oxygen species, reactive nitrogen species, radicals and/or non-radicals may be thereby reduced. The analog or analog combination may be administered to a subject for the inhibition and/or amelioration of ischemia-reperfusion injury. The analog or analog combination may be administered to a subject for the inhibition and/or amelioration of liver disease. The analog or analog combination may be administered to a subject for the inhibition and/or amelioration of cancer. The analog or analog combination may be administered to a subject for the inhibition and/or amelioration of cardiac arrhythmia and/or sudden cardiac death. The analog or analog combination may be administered to a subject for the inhibition and/or amelioration of any disease that involves production of reactive oxygen species, reactive nitrogen species, radicals and/or non-radicals. In one embodiment, a water-soluble and/or water-dispersible astaxanthin analog is particularly effective. This invention further

includes pharmaceutical compns. comprising structural carotenoid analogs either alone or in combination.

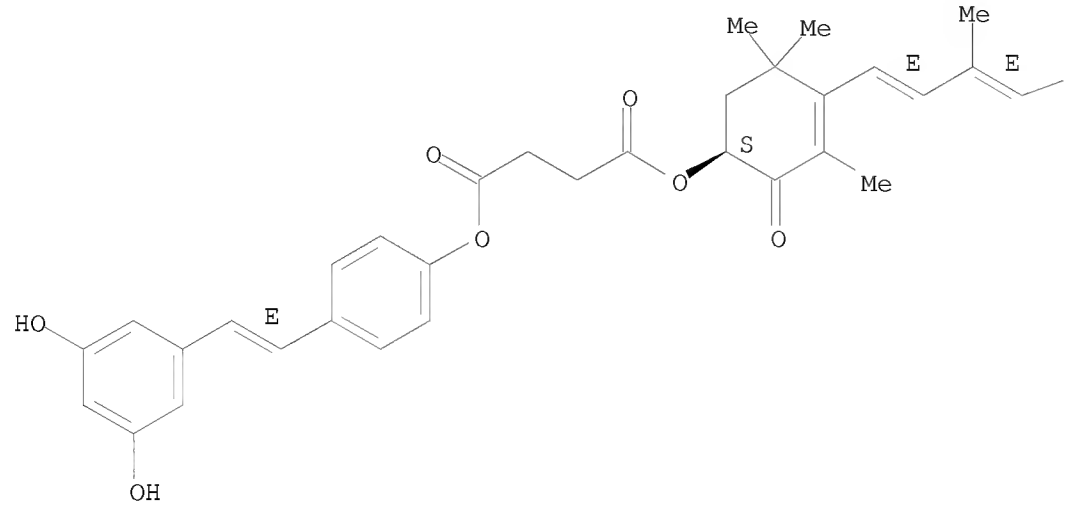
IT 653566-06-4P 653566-07-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation, bioactivity and pharmacol. of structural carotenoid analogs for the inhibition and amelioration of disease)

RN 653566-06-4 CAPLUS

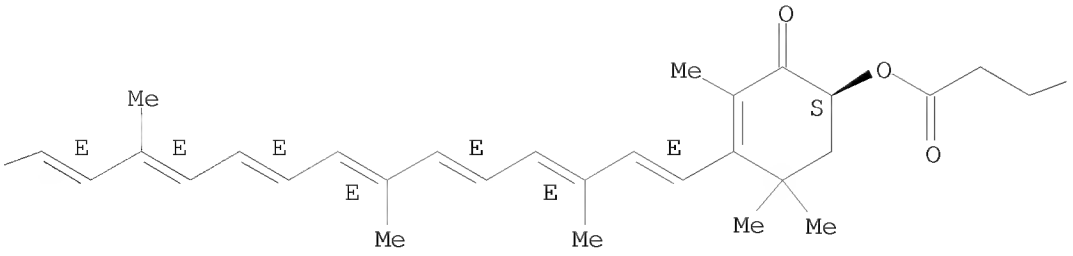
CN β,β-Carotene-4,4'-dione, 3-(3-carboxy-1-oxopropoxy)-3'-[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

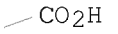
PAGE 1-A



PAGE 1-B



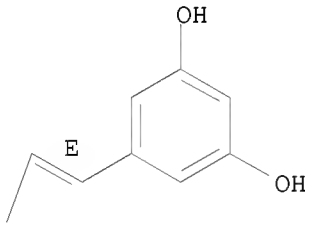
PAGE 1-C



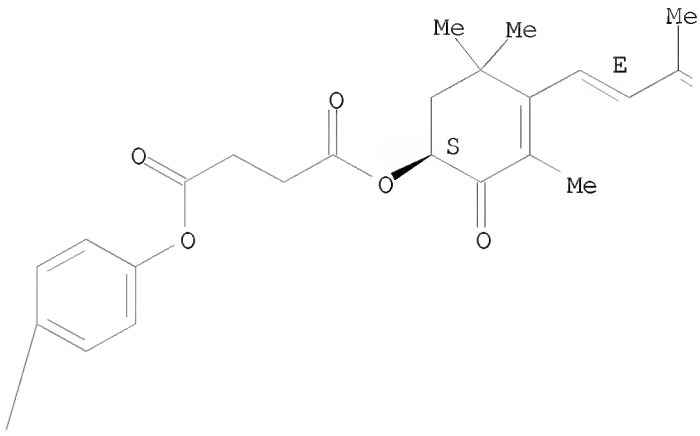
RN 653566-07-5 CAPLUS
CN β,β-Carotene-4,4'-dione,
3,3'-bis[4-[4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenoxy]-1,4-dioxobutoxy]-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

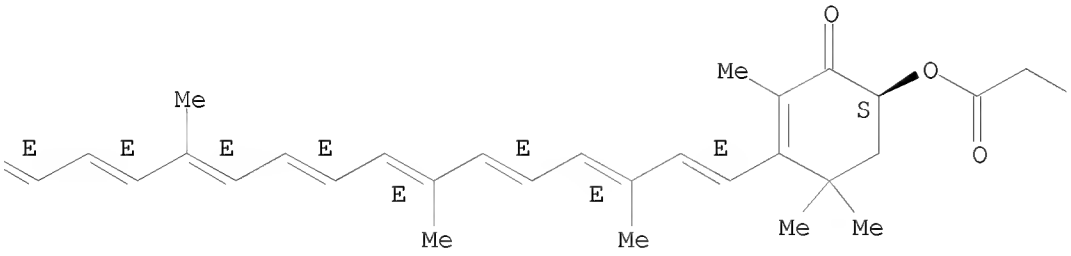
PAGE 1-C



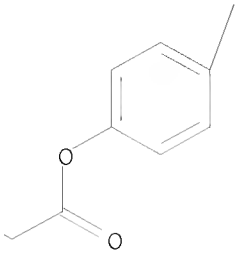
PAGE 2-A



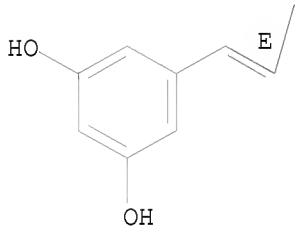
PAGE 2-B



PAGE 2-C



PAGE 3-A

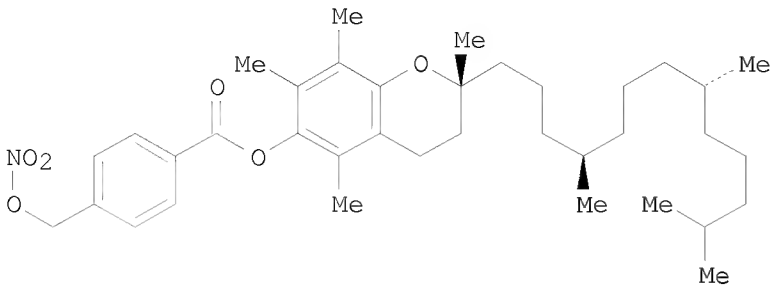


OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

L3 ANSWER 42 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:652131 CAPLUS
DOCUMENT NUMBER: 139:214237
TITLE: Preparation of nitrate prodrugs able to release nitric oxide in a controlled and selective way and their use for prevention and treatment of inflammatory, ischemic and proliferative diseases
INVENTOR(S): Scaramuzzino, Giovanni
PATENT ASSIGNEE(S): Italy
SOURCE: Eur. Pat. Appl., 313 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1336602	A1	20030820	EP 2002-425075	20020213
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			EP 2002-425075	20020213

GI



II

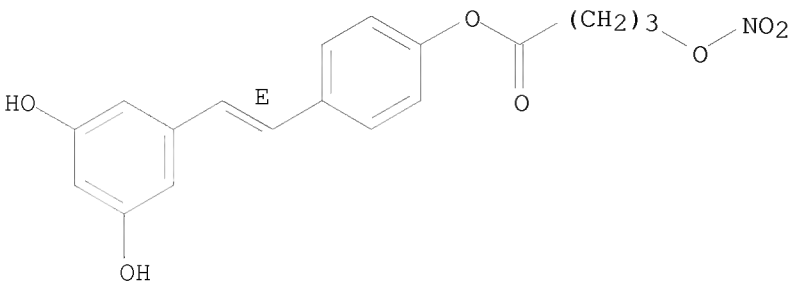
AB New pharmaceutical compds. of general formula F-(X)q (I) [q = 1-5, preferably 1; F is chosen among drugs such as δ-tocopherol, clidanac, diethylhomospermine, glucosamine, thymocartin, vofopitant, etc.; X is chosen among 4 groups M, T, V, and Y where M = ONO2, nitrate salt, nitrite ester, ONO, thoinitrite, SNO, etc., T = OR1-M, OR1OR1-M, SR1NR2R1-M, NR2R1-M, NR2R1SR1-M, etc., R1 = saturated or unsatd., linear or branched alkylene, having 1 to 21 carbon atoms or a saturated or unsatd., optionally heterosubstituted or branched cycloalkylene, having 3 to 7 carbon atoms or an optionally heterosubstituted arylene having 3 to 7 carbon atoms; R2 = H, saturated or unsatd., linear or branched 1-21 carbon atom alkyl, saturated or unsatd. optionally heterosubstituted or branched 3-7 carbon cycloalkyl, optionally heterosubstituted 3-7 carbon aryl; R1, R2 = OH, SH, F, Cl, Br, OPO3H2, CO2H, etc.; bond between F and T = carboxylic ester, carboxylic amide, glycoside, azo, thioester, sulfonic ester, etc.; V = Z-M2, OZ-M2, NR2Z-M2, R1Z-M2, OR1-M2, OR1Z-M2, M2 = M, R1-M, OR1-M, SR1-M, NR2R1-M; ZM2 = COCH2CH(M2)CH2N+Me3, COCH2CH2COM2, COCH(NHR2)CH2M2, etc.; Y = 4-COC6H4CH2ONO2, O(CH2)4ONO2, COCH(NH2)CH2ONO2, 3-OC6H4CH2ONO2, etc.] were prepared For example, α-tocopherol reacted with 4-HO2CC6H4CH2ONO2 to give the nitroxymethyl derivative II. The compds. of general formula I are nitrate prodrugs which can release nitric oxide in vivo in a controlled and selective way and without hypotensive side effects and for this reason they are useful for the preparation of medicines for prevention and treatment of inflammatory, ischemic, degenerative and proliferative diseases of musculoskeletal, tegumental, respiratory, gastrointestinal, genito-urinary and central nervous systems.

IT 586350-57-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of nitrate prodrugs for treating or preventing inflammatory, ischemic, degenerative, and proliferative diseases)

RN 586350-57-4 CAPLUS

CN Butanoic acid, 4-(nitrooxy)-, 4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]phenyl ester (CA INDEX NAME)

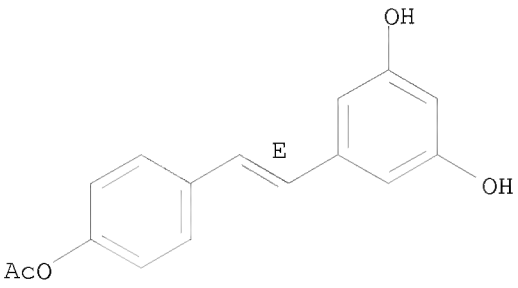
Double bond geometry as shown.



OS.CITING REF COUNT: 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS)
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 43 OF 43 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:66575 CAPLUS
DOCUMENT NUMBER: 136:308578
TITLE: Chemo-enzymatic preparation of resveratrol derivatives
AUTHOR(S): Nicolosi, Giovanni; Spatafora, Carmela; Tringali, Corrado
CORPORATE SOURCE: Istituto CNR per lo Studio delle Sostanze Naturali, Valverde CT, 95028, Italy
SOURCE: Journal of Molecular Catalysis B: Enzymatic (2002), 16(5-6), 223-229
CODEN: JMCEF8; ISSN: 1381-1177
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:308578
AB Regioselective derivatization of resveratrol (1) at positions 3, 5 or 4' was achieved by a chemo-enzymic procedure based on standard chemical reactions and esterification or alcoholysis in organic solvents catalyzed by the com. available Pseudomonas cepacia (PcL) and Candida antarctica (CaL) lipases.
IT 411233-11-9P, 4'-O-Acetylresveratrol
RL: BPN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(chemo-enzymic preparation of resveratrol derivs.)
RN 411233-11-9 CAPLUS
CN 1,3-Benzenediol, 5-[(1E)-2-[4-(acetyloxy)phenyl]ethenyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>

---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	243.52	429.62

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-35.26	-35.26

STN INTERNATIONAL LOGOFF AT 16:35:59 ON 20 AUG 2009